

**LEGISLATIVE HEARING ON S. 2421, THE FAIR
AGRICULTURAL REPORTING METHOD ACT**

HEARING
BEFORE THE
SUBCOMMITTEE ON SUPERFUND, WASTE
MANAGEMENT, AND REGULATORY OVERSIGHT
OF THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION

MARCH 8, 2018

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION

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LEGISLATIVE HEARING ON S. 2421, THE FAIR AGRICULTURAL REPORTING METHOD ACT

THURSDAY, MARCH 8, 2018

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON SUPERFUND, WASTE MANAGEMENT,
AND REGULATORY OVERSIGHT,
Washington, DC.

The Committee met, pursuant to notice, at 10:03 a.m. in room 406, Dirksen Senate Office Building, Hon. Mike Rounds (Chairman of the Subcommittee) presiding.

Present: Senators Rounds, Booker, Moran, Ernst, Van Hollen, Barrasso, Carper, Inhofe, Boozman, Wicker, Fischer, and Markey.

OPENING STATEMENT OF HON. MIKE ROUNDS, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator ROUNDS. Well, good morning.

The Environment and Public Works Subcommittee on Superfund, Waste Management, and Regulatory Oversight is meeting today to conduct a legislative hearing on S. 2421, the Fair Agricultural Reporting Method, or FARM Act.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, or CERCLA, was established to manage hazardous waste and respond to environmental emergency spills and natural disasters. Under CERCLA, the owner or operator of a facility must report the release of a certain amount of hazardous substance to authorities within 24 hours. This is to make certain that first responders have the information they need to adequately respond to a release of a hazardous substance into the environment and surrounding community.

Although ammonia and hydrogen sulfide are both considered hazardous substances under CERCLA, and both are emitted into the air from animal manure, Congress never intended normal agricultural operations and American farmers to be subject to the reporting requirements under these laws. CERCLA was intended to make certain State and Federal officials have the information they need in the event they have to respond to an emergency release of a hazardous substance. It is unlikely Federal officials would be required to respond to an emergency release at a cattle operation or a poultry farm, particularly one resulting from animal waste or emissions.

Further, it is unlikely the U.S. Coast Guard, which coordinates CERCLA reporting, has the resources to manage the nearly 200,000 farms that would be required to report their daily activi-

ties under this rule. This additional burden on resources could potentially hinder the ability of first responders to respond to real emergencies.

Accordingly, in 2008 the Environmental Protection Agency released a rule exempting animal waste at agricultural operations from CERCLA reporting. However, in 2017 the D.C. Circuit Court, in *Waterkeeper Alliance v. EPA*, vacated the EPA's 2008 rule. This decision leaves approximately 200,000 American farmers subject to bureaucratic and burdensome reporting and paperwork, the requirements that may overwhelm first responders, while the benefits of this regulation are questionable at best.

That is why I have worked with Senator Fischer, Chairman Barrasso, Ranking Member Carper, and the rest of my bipartisan colleagues to introduce the Fair Agricultural Reporting Method, or FARM Act. This legislation would reinstate the CERCLA reporting exemption for air emissions from animal wastes so that American farmers and ranchers will not be burdened by needless Federal regulations and can continue to do what they do best.

American farmers and ranchers are already required to comply with multiple Federal regulations governing how they run their operations. Complying with these Federal regulations requires hours of paperwork, time, money, and resources, all of which take away from actually being able to work on their land. We should not make them subject to additional layers of bureaucracy that Congress never intended them to be subject to.

It should also be noted that CERCLA is the basis for EPA's Superfund program. This law was intended to allow the EPA to coordinate cleanups of hazardous waste or Superfund sites. A U.S. farm or ranch is most certainly not a Superfund site and should not be regulated as such. The FARM Act prevents U.S. farmers and ranchers from being subject to needless regulations that have no environmental benefit.

I would like to thank Senator Fischer and Chairman Barrasso for their leadership on this issue. I am glad we were able to work in a bipartisan fashion to move this bill forward.

Our witnesses today are members of the agricultural community, with decades of experience in farming and ranching. They are well versed in agricultural operations and how Federal regulations affect their way of life, and their ability to do business and provide the food that we all rely on.

I would like to thank our witnesses for being here today with us, and I look forward to hearing their testimony.

Now I would like to recognize Senator Booker for a 5 minute opening statement.

Senator Booker.

**OPENING STATEMENT OF HON. CORY A. BOOKER,
U.S. SENATOR FROM THE STATE OF NEW JERSEY**

Senator BOOKER. I am really grateful, Chairman Rounds, to be able to serve with you on this Committee; it is exciting to have the opportunity to partner with you. I hope it is as well as my partnership with Senator Fischer. She and I were a great tag team. She is still mad at me for leaving her in the other committee.

But I want to thank our witnesses for being here today. I think this is just a really important conversation. The issue of air emissions from large CAFOs and the impact of those emissions on neighboring property owners is indeed a very serious issue, life threatening issue.

As animal waste breaks down, it emits dangerous pollutants, specifically ammonia and hydrogen sulfide, as the Chairman said. To protect the health of the small family farmers and other residents who live near these massive CAFOs, there are currently two laws that require reporting of emissions of ammonia and hydrogen sulfide at levels of 100 pounds per day.

The first law, CERCLA, which the Chairman mentioned, requires reporting of these emissions to the Coast Guard National Response Center. The second law, EPCRA, requires reporting of emissions from extremely hazardous substances to State and local authorities. In 2008 again, as the Chairman detailed, the EPA attempted to exempt all CAFOs from having to report their emissions under CERCLA, and also attempted to exempt all but the largest CAFOs from reporting under EPCRA.

Last year, the D.C. Circuit Court struck down the attempt by the EPA to exempt reporting emissions of hydrogen sulfide and ammonia from CAFOs. The D.C. Circuit Court, in its decision, stated the risk of harm of those emissions isn't just theoretical; people have become seriously ill and even died as a result of them.

EPA itself has found that hydrogen sulfide can cause respiratory irritation and cause central nervous system effects 1 mile downwind when emitted at current reportable quality of 100 pounds per day. Of those affected, children are the most at risk for lung disease and health effects, and the closer a child lives to a CAFO, the greater the risk of asthma symptoms.

At the last meeting of this Committee, I talked about my 2016 trip to Duplin County, North Carolina. Given the focus of today's hearing, I want to again talk about my trip and my firsthand experiences going to Duplin County.

In 2016 residents from Duplin came to Washington, telling lawmakers that they desperately needed help. There are about 60,000 people that live in Duplin County, but there are more than 2 million pigs being raised there. And the primary way that the waste from those 2 million pigs is disposed of is by piping it into huge, open air lagoons and then spraying the waste out onto open fields, what I witnessed myself, with my own eyes.

These residents that came to Washington complained about suffering from serious respiratory problems such as asthma and chronic lung disease caused by living near these lagoons and spray fields. So, when I visited Duplin County, I wanted to see these conditions firsthand, and what I saw there is something I will never, ever forget.

I saw pig waste being sprayed; I saw how the wind was carrying the mist. Some of the spray would fall, but I watched it mist onto adjacent properties. I smelled what was a wretched, horrible smell standing hundreds and hundreds of yards away, and how that smell permeated the entire community. I heard heartbreaking stories from residents who said they too often felt like prisoners in their own homes.

In fact, I met a veteran from foreign wars who said I fought for my country overseas, and I came back and am a prisoner in my own home. They talked about how they no longer can have cook-outs in their backyards; that they can't even open their windows or run their air conditioning because of that toxic smell.

So when we have legislation before us that would create exemptions from reporting, I think we need to be very careful how we proceed. Under current law, we still have communities like Duplin County, where people are truly suffering, where their rates of respiratory illness and other diseases are higher than the general population.

I was happy to see that this bill, S. 2421, only proposes to exempt CAFOs from reporting under CERCLA, and not under EPCRA. And I know that Senator Carper and others fought to limit the scope of the bill before signing on. But the problem is that the EPA is again taking action to exempt CAFOs from having to report these emissions under EPCRA. If the EPA is successful in creating a complete exemption, local residents will no longer have access to information about the levels of these harmful chemicals being emitted literally into their front yards, as I know we will see from one witness.

Some farmers should not have to file unnecessary paperwork. I believe that very strongly. And ranchers who engage in pasture based farming, like Mr. Mortenson does, should not have to calculate emissions and file forms.

But larger CAFOs are a different story. The type of operations that I saw in North Carolina, and the type in Iowa that Mr. Kuhn will describe in his testimony, create serious health risks. This is about people. This is about their lives, their livelihoods, their property values, and their health. And as it currently stands, reporting under EPCRA is not difficult; large CAFOs have been doing it for years, and a reporting mechanism is already in place.

So, I hope that between Congress and the EPA we can find a path forward that gives clarity to small farmers that they do not need to report their emissions, but that continues to require reporting under EPCRA by CAFOs that emit over 100 pounds per day of ammonia or hydrogen sulfide, serious dangerous agents.

Thank you, Senator Rounds, for this, which, again, I think is an urgently needed conversation, and I look forward to hearing from our witnesses.

Senator ROUNDS. Thank you, Senator Booker, and I look forward to working with you on this Committee, as well as the Ranking Member.

Traditionally, in this Subcommittee, we would allow the Chairman and the Ranking Member of the full Committee to also have an opportunity to visit. Senator Barrasso just had to leave to go to a business meeting, so he has indicated that he would pass on his opportunity at this point. However, we are privileged in that Ranking Member Carper is here, and at this time I would like to ask Senator Carper if he would like to make an opening statement.

**OPENING STATEMENT OF HON. THOMAS R. CARPER,
U.S. SENATOR FROM THE STATE OF DELAWARE**

Senator CARPER. Yes, I would. Thank you.

I appreciate very much the Chairman and the Ranking Member hosting this hearing today. Thank Senator Fischer and others for trying to lead us to a principled compromise, where we are mindful of the need to protect public health, and at the same time, to make sure that an industry which provides a lot of jobs in this country—the ag industry—is able to be successful and compete in the world.

Delaware is not a big State. I go home almost every night; went home last night. We have three counties; the largest one is in southern Delaware. Sussex County is the third largest county in America. It is a little State, but the third largest county in America.

We raise more chickens there, I am told, than any county in America. Last time I checked, we raise more soybean than any county in America. And I think the last time I checked we raise more lima beans than any county in America, and I think we have more five-star beaches than any county in America. So it is a little State, but that is quite a county, isn't it? But we have a lot of people who live there, and we want to make sure they have a good environment in which to live; clean air, clean water.

We raise a lot of chickens on Delmarva, as Bill knows, Delaware, Maryland, and the Virginia eastern shore, and for years the farmers have taken chicken litter, chicken manure, and mixed with sawdust, which is usually on the floor of the chicken house; they mix it together and use it for fertilizer and spread it on farm fields all over Delmarva and certainly all over Sussex County in order to support raising soybeans, corn, and other crops.

For years and years we were not very good environmental stewards with the way we spread our chicken litter on our farm fields. Didn't do a good job. As Bill knows, a lot of our farm fields drain into creeks, drain into ditches, and eventually into rivers, Nanticoke River, which flows into the Chesapeake Bay. The Chesapeake Bay badly degraded, and we were one of the reasons why it was badly degraded.

About 20 years ago, my last term as Governor, we put together a farmer led initiative, nutrient management commission, farmer led, includes some environmentalists, includes the Department of Natural Resources and Environmental Control, and we figured out a way to make sure that folks who were spreading chicken litter on farm fields, which is high in phosphorus, high in nitrogen. It is good fertilizer, relatively inexpensive; we have to figure out what to do with it.

For those who, starting in the late 1990s, were going to be spread chicken litter, they had to get a plan. They had to submit a plan, say this is my plan, here is how I am going to do it; have to have their soil tested to make sure it was appropriate for receiving chicken litter, how much could go onto the farm fields that would be safe for public health, and to make sure that the farmers were adhering to their nutrient management plan. We have been doing that for over 15 years.

Senator Van Hollen and Senator Cardin will tell you that the quality of the water in the Chesapeake Bay has significantly improved. Is it perfect? No, it is not. Delaware was not a good neighbor for many, many years. I think we are a much better neighbor today. They have a neighbor up to the north, Pennsylvania; so do

we. I don't think Pennsylvania has sort of—we have to get them online.

But Delaware is a much better neighbor today. Can we do better? Sure, we can always do better. Everything I do, everything all of us do, we can do better. But I just want to give you that for a little bit of context.

I have known Bill Satterfield forever. When I was elected State Treasurer at the age of 29, every time you get on the radio, if you are State Treasurer, it is not a hot commodity like being a Senator. Every now and then I would get invited to Radio Station WDOV—was that the name of the station?—WKEN in Dover, Delaware. One of the folks who was on, one of the people who did this talk radio, and one of the folks who did some of the program and some of the interviews was Bill Satterfield.

He was nice enough to invite me to be on his show from time to time, and on my way, driving on Route 8 to WKEN to do the interview, I would drive—was it a Tastee-Freez?—I would drive by Tastee-Freez on my way. I love chocolate milkshakes. I would stop and get a chocolate milkshake. He was a co-owner. Who was the other guy who was a co-owner with you? Yes, Rick.

And I would get a chocolate milkshake and then I would go do the interview, and he would say to me at the beginning of the interview, he would say, “How are you doing today?” And I would say, “Great. There was a Tastee-Freez on the way out here on Route 8, and I love to stop there and get a chocolate milkshake; in fact, I am having one right now. And you guys make the best—I don't know who owns that place, but they make the best chocolate milkshake.”

But anyway, from those humble beginnings, me, a State Treasurer, and Bill as a radio interview personality, he went on to join the Delmarva poultry industry in 1986, was named their Executive Director in 1993, and he works to advance the interests of our Delmarva poultry farmers. I said earlier ag is a big deal in our State, and especially in the southern part of the State.

I have said a million times before to my colleagues that it is possible to have clean air, it is possible to have clean water, cleaner air, cleaner water, and good public health, and still have jobs, and there is always a balance, and sometimes it is not easy to find that balance, but we think we are working toward that and still will continue to do this.

But I said in our full Committee here on ag issues last month, I acknowledged that sometimes environmental requirements can be complex. They can be confusing to those who farm, especially when those rules apply suddenly to them, and that is what happened in April 2017 when the D.C. Circuit Court of appeals invalidated an EPA rule from 2008.

That rule had exempted all farms in the nation, as we have heard today, from reporting requirements for hazardous air emissions from animal waste under CERCLA. That rule also exempted small and medium sized farms from reporting under the Emergency Planning and Community Right-to-Know Act, which we know as EPCRA, but left in place, reporting requirements for large farms.

But with the FARM Act, the legislation that we are holding this hearing on today, we are hoping to provide certainty to farmers by legislatively exempting all farms under CERCLA, as was done by EPA in its 2008 rule.

One thing I worked hard on this legislation with Senators Fischer and Barrasso and others, as we were developing this legislation, is to make sure the FARM Act makes no change to EPCRA reporting, no change. And I think Senator Booker has mentioned this already.

I just want to thank both Senator Barrasso, I want to thank Senator Fischer, others, other staffs and others for working with my staff and me and agreeing not to amend EPCRA in this bill. This is an issue that was critical for many members on our Democratic side. We have repeatedly heard concerns from State and local officials, public health experts and other members of our communities who want information about what is in their air, and this bill seeks to strike a careful balance. As a result, it enjoys broad, bipartisan support. My hope is that that broad support can be translated into prompt legislative action.

Again, my thanks to all who played a role in crafting this compromise which is before us today.

Senator Booker and I show up most Thursdays, we will do it later today, at a Bible study group led by our Chaplain, Barry Black, for about a half an hour. It is for those seven or eight of us who need the most help, right?

One of the things that Chaplain Black, who is retired Navy Admiral, former Chief of Chaplains for the Navy and Marine Corps, he always reminds us every week of the Golden Rule: treat other people the way we want to be treated, and love thy neighbor as thyself. And this is an effort, I think, a good faith effort to try to make sure that we are true to that admonition.

We are not there yet, but it is striving toward perfection. Keep striving, keep striving, and hopefully some day we will get there. Maybe we will even get to Heaven. Who knows?

Thank you so much.

Senator ROUNDS. Thank you, Senator Carper. I think Senator Booker was right as he suggested to me that not only will they probably clip your message here on behalf of your local Chamber of Commerce, but probably the dairy and milk industries will as well. Chocolate malts sound very good, actually.

I would also make note that Senator Carper has suggested that this is a bipartisan effort. A lot of that has to do with the leadership of Senator Fischer and her work here to gather both Republicans and Democrats as part of this. She currently has 12 Democrats and 21 Republicans on this as cosponsors, and that says a lot about the leadership that she has provided.

I would like to give Senator Fischer the opportunity to visit a little bit about this legislation before we move directly to our witnesses.

Senator BOOKER. And I would like to note for the record it was her birthday last week. She is now, I think, 38.

[Laughter.]

Senator FISCHER. That would be correct.

[Laughter.]

**OPENING STATEMENT OF HON. DEB FISCHER,
U.S. SENATOR FROM THE STATE OF NEBRASKA**

Senator FISCHER. Thank you, Chairman Rounds and Ranking Member Booker, for convening today's legislative hearing on important bipartisan legislation that would ensure common sense policies prevail for our farmers, our ranchers, and our livestock markets.

Mr. Chairman, I thank you for your support, and to my other EPW colleagues, Chairman Barrasso, Ranking Member Carper, Senators Inhofe, Ernst, Moran, Duckworth, Wicker, and Boozman, for supporting this important legislation. I would also like to thank the witness panel for their willingness to share their time and experience with our Committee this morning.

Since my first day in Congress I have worked with my Senate colleagues to promote policies that enable our ag producers to prosper, while also safeguarding our environment. The bill before us today, the Fair Agricultural Reporting Method, or the FARM Act, would provide greater certainty for ag producers. It will protect farmers and ranchers from burdensome reporting requirements for animal waste emissions under the Superfund law, also known as CERCLA.

When CERCLA was enacted, Congress never intended the law to affect normal production agricultural practices. Instead, the law is meant to address dangerous industrial pollution, chemical plant explosions, and the release of hazardous materials into the environment.

In an effort to clarify that animal manure is not a hazardous chemical emission, the EPA published a final rule in 2008 that exempted most livestock operations from animal waste emission reporting requirements under CERCLA. But last year the U.S. Court of Appeals for the D.C. Circuit vacated the 2008 rule, noting that the EPA does not have the authority to grant the reporting requirement exemption.

The Court's decision created confusion, and it created that for both the EPA and ag producers, and that sent a clear message that a legislative fix from Congress is needed to clarify these reporting requirements. My legislation does exactly that.

The FARM Act codifies the original intent from the EPA's 2008 rule by mirroring the intent of the exemption. It does so by providing an exemption for air emissions from animal waste from CERCLA reporting requirements. Most importantly, it provides ag producers with greater certainty by reinstating the status quo that producers have been operating under since EPA's final 2008 rule.

It is important to also note that while EPA administers CERCLA, producers must notify the National Response Center, which is housed under the U.S. Coast Guard, of their animal waste emission releases. The NRC reported that their daily calls jumped from an average to 100 to 150 to well over 1,000 a day, creating at times a 2 hour wait delay. Due to the extreme influx of reports, the director of the NRC wrote to me that without the CERCLA exemption, the increased reporting would absolutely hinder the Coast Guard's ability to respond to real emergencies around this country.

We all want clean air, and we want clean water. Our farmers and ranchers understand this better than most, and it is important

for us to provide them the necessary tools that they need to continue to feed our nation and to feed the world. America's farm and ranch families are currently experiencing a tough economy. We have depressed markets, and we have tight margins. They shouldn't also have to worry about reporting their animal waste emissions.

This is an issue where we can provide a solution. It is one of those rare moments where everyone involved, our stakeholders, the EPA, and the National Response Center, all want a fix, and I am grateful for the bipartisan interest in seizing this opportunity.

I am looking forward to today's discussion, and I thank my 33 colleagues on both sides of the aisle for joining me in this legislation.

Thank you, Mr. Chairman.

Senator ROUNDS. Thank you, Senator Fischer, and once again, thanks for the leadership on this. This is very, very important. Any time you bring together both Republicans and Democrats in these numbers, that says a lot about the work that you put into it, so thank you.

At this time, Senator Barrasso, who is the Chairman of our full Committee, has again rejoined the Subcommittee.

Senator Barrasso, would you care to make any opening comments?

**OPENING STATEMENT OF HON. JOHN BARRASSO,
U.S. SENATOR FROM THE STATE OF WYOMING**

Senator BARRASSO. Well, thank you very much, Mr. Chairman. I want to thank you, as well as Ranking Member Booker, for convening this hearing on S. 2421, the Fair Agricultural Reporting Method Act, the FARM Act. It is important bipartisan legislation that is going to help bring clarity to ranchers and to farmers in Wyoming and all across the country. I cosponsored the bill, strongly support it, and compliment Senator Fischer for its introduction.

The Comprehensive Environmental Response, Compensation, and Liability Act, CERCLA, was enacted by Congress to give EPA the authority, the authority to respond to hazardous industrial pollution that threatens the environment and public health. It is an important and necessary law, provides tools to clean up polluted sites, and to hold responsible parties accountable.

But when applied to the everyday activities of ranches and farms, it really makes very little sense. That is why, in 2008, the EPA finalized a rule to clarify that farming ranches are exempted from air emission reporting requirements under CERCLA. Even the Obama administration agreed that farmers and ranchers should be relieved of some of this burdensome regulation.

In April 2017 the D.C. Circuit Court nullified the Obama administration rule, mandating new onerous reporting requirements for up to 100,000 farms and ranches.

Now, Mr. Chairman, I was home in Wyoming the last 2 weekends, 1 weekend in Riverton, Wyoming, the Freemont County Cattlemen's Association; last weekend in Big Piney and Marbleton, Wyoming, at the Green River Valley Cattlemen's Association. Look, I continue to hear how out of touch the environmental regulations have become, and this is a textbook example. The people who labor

year round to feed, to clothe, to house our nation should not be burdened with the time and money it takes to estimate and to record and to file emissions reports that even the EPA has said it does not need or want.

That is why enacting the FARM Act is critical. It is a common sense bill. It protects ranchers and farmers in Wyoming and around the nation from punishing and unnecessary Federal Government regulations. It eliminates regulatory uncertainty by putting into law the CERCLA animal air emissions exemption that producers have relied on since the EPA's 2008 rule. I believe it is an important bill.

I would like to again thank Chairman Rounds, Ranking Member Booker for holding this hearing, and especially like to thank Senator Fischer for bringing it to us, bringing it to the Senate as we move forward on this bill.

Thank you, Mr. Chairman.

Senator ROUNDS. Thank you, Chairman Barrasso.

Our first witness for today's hearing is Mr. Todd Mortenson, who is the Owner-Operator of Mortenson Ranch in South Dakota. On a personal note, Todd lost his father, Clarence, just this last week, who was a good friend of mine, a real gentleman, and truly, with regard to modern sustainable ag practices, probably one of the fathers of making it a reality in South Dakota.

First of all, my condolences to you and to your family on the loss of your father, but also in South Dakota the loss of a real gentleman and a true part of the pride that we have in our State. So, just on a personal note, that loss is felt.

Todd is the owner and operator of the Mortenson Ranch in Stanley County, South Dakota. His cow calf operation sits along the beautiful Cheyenne River, and Todd focuses on conservation and stewardship of his land. He has restored more than 90 percent of his 19,000 acre ranch back to native grasses, shrubs, and trees, and for this Todd was recognized by the Sand County Foundation as the Leopold Conservation Award winner in 2011.

The Mortenson Ranch was also the subject of a multi-year study conducted by the South Dakota State University, and in my opinion, is a gold standard for striking a perfect balance between ranching, economics, and environmental conservation.

I first went out to Todd's ranch way back in the 1990s, and I saw what they were doing for water improvement on livestock improvement, pasture improvement, bringing broadleaf back in and so forth, and it can be pointed to as a true success story for sustainable ag.

Senator Carper is still here. I would like to yield to Senator Carper to introduce our second witness at this time.

Senator Carper.

Senator CARPER. I think I have done about as much harm to Bill Satterfield's reputation as anybody can. But if you didn't get the drift of my earlier statements when I talked about him, a little bit about his background.

Agriculture is hugely important in all of our States, but particularly in southern Delaware, and a big part of that is poultry. We always face, in every one of our States, the question can we have cleaner air, cleaner water, and still have jobs. Can we have better

public health and still have jobs? And I always say it is a false choice to say you have to choose one or the other. We can have both. And part of what we want to do is make sure that we do a better job of adhering to that thought, and I think Bill understands that, and he has helped to provide leadership for a big consortium of folks who raise chickens, process chickens, export chickens all over the world, and we are grateful for his service in that regard, and I am just grateful for his friendship over all these years.

Senator BOOKER. Mr. Chairman, I just want to note for the record that Mr. Satterfield did not bring chocolate milkshakes for everybody.

[Laughter.]

Senator ROUNDS. Duly noted.

Senator VAN HOLLEN. Mr. Chairman, if I just could, I believe, if I am not wrong, that Mr. Satterfield actually, if you still live in Salisbury, you are a Marylander, so we are very proud to have you as a Marylander, and thank you for being here.

Senator CARPER. But he still votes in Delaware. No, I am just kidding.

[Laughter.]

Senator CARPER. For the record, he does not.

Senator ROUNDS. We won't get into that today.

Mr. Satterfield, welcome.

Senator CARPER. Thank you, Bill.

Senator ROUNDS. Our third witness for today's hearing is Mr. Mark Kuhn, Floyd County Supervisor, Floyd County, Iowa, and we welcome you, as well, to this very special panel. Thank you, sir, for being here.

Now we will turn to our first witness, Mr. Todd Mortenson, for 5 minutes.

Mr. Mortenson, you may begin.

**STATEMENT OF TODD MORTENSON, MORTENSON RANCH,
MEMBER, NATIONAL CATTLEMEN'S BEEF ASSOCIATION**

Mr. MORTENSON. Good morning. My name is Todd Mortenson. My wife, Deb, and I, along with our sons, Quinn and Jack, live on a ranch in Stanley County, South Dakota, along the Cheyenne River. I am a member of the South Dakota Cattlemen's Association and the National Cattlemen's Beef Association, and today I am representing cattle producers from across the country.

Thank you, Chairman Rounds and Ranking Member Booker, for allowing me to testify on CERCLA reporting for agriculture and the importance of the FARM Act.

Farmers and ranchers truly are America's original environmentalists. We care more than anyone about the land that we manage because the environmental quality of our operations directly impacts not only the health of our livestock, but the water we drink and the air we breathe. I work hard to implement management practices that improve the environmental sustainability of my ranch so that someday I can pass it on to my sons. For example, we move cattle to the uplands during the summer months, allowing increased native plant growth and decreased sediment flow through the ranch creeks.

While I fully support best management practices that improve environmental quality, I cannot support needless requirements that burden the agricultural community while providing no benefit. A prime example of this is the burdensome reporting requirement under CERCLA which requires farmers and ranchers to report manure odors to multiple Federal agencies for emergency response coordination. Let me say that again, because the absurd bears repeating. CERCLA reporting requires farmers and ranchers to report manure odors to the Federal Government so that the Federal Government can coordinate an emergency response to manure odors.

On my pasture based cow calf operation, I manage 1,295 cows on 19,000 acres. Because my cattle are so spread out, the concentration of emissions is extremely low. But CERCLA does not consider concentration, only release. It makes no difference whether my cattle are spread over 10 acres or 10,000 acres; if my cattle emit over 100 pounds of ammonia or hydrogen sulfide per day, I am required to report their emissions to the Coast Guard and the EPA.

It is clear that Congress never intended for CERCLA to govern agricultural manure odors. The EPA understands this, and in 2008 exempted agricultural operations from CERCLA reporting requirements. While the exemption was put in place by the George W. Bush administration, it was defended in court by the Obama administration. In defending the exemption, the Obama EPA argued that Congress did not include an exemption for manure emissions because they never dreamed that these low level emissions would fall into the possible realm of regulation.

However, in April 2017 environmental groups won their lawsuit, and the D.C. Circuit Court eliminated these important exemptions. When the mandate issues in May, nearly 200,000 farmers and ranchers will be required to report low level manure odors to the Federal Government.

Reporting is no simple task; it is a three step process that requires, at minimum, 1 year to complete. The first step is an initial call to the Coast Guard, the agency tasked with coordinating emergency response for the nation's hazardous emergencies, such as oil spills and chemical explosions.

The Coast Guard is on record stating that these reports don't help them at all. In fact, they only hurt their ability to respond to environmental and public health emergencies. For quotes from the Coast Guard's declaration to the D.C. Court, you can see my written testimony. In summary, the Coast Guard indicated that early calls in November from some livestock operations increased wait times to report emergency releases by up to 2 hours.

The initial call is followed by two written reports to the EPA sent over the span of 1 year. These reports require detailed information regarding my cattle's emissions, information that I simply do not have. Research in this area is limited, to say the least. Only two land grant universities have done research to establish an emissions calculator, and as a pasture based producer, there is no available science to meet the statutory burden.

It should also be noted that this reporting requirement is not a one and done obligation; any time I decide to increase the size of my herd, I am required to start the process all over again.

To clarify these exemptions, Congress needs to change the law to reflect its intent that livestock producers are exempt from CERCLA reporting requirements. The FARM Act, introduced just a couple of weeks ago, provides the relief that livestock owners and first responders need under CERCLA, and has the same bipartisan support exhibited under the Bush and Obama administrations.

CERCLA is one of our most important environmental statutes, providing the tools we need to effectively clean up releases that harm both the environment and public health. Unfortunately, we all know that environmental agencies are given low priority at both Federal and State level. The FARM Act will ensure that precious time and monetary resources are not siphoned from important cleanup efforts to address a paperwork requirement with no environmental or public health benefit.

As May 1st quickly approaches, only Congress can ensure that the agriculture community is protected from this reporting burden, the reliability of our emergency response coordination is maintained, and the integrity of the Superfund law is not degraded.

Thank you for your time, and thank you for your support of the FARM Act.

[The prepared statement of Mr. Mortenson follows:]

Todd Mortenson - Biography

Todd Mortenson lives on a ranch located in west central South Dakota in the northwest corner of Stanley county, along the Cheyenne River.

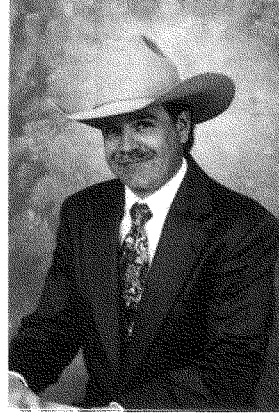
Todd, along with his wife Deb and sons Quinn and Jack, operate the cow/calf ranch. Todd's brother Curt and his family also maintain an ownership interest in the ranch and help out when needed. Shane and Val Sheets, a young couple from the area, live and work with the Mortensons on the ranch.

Additionally, Todd owns 200 acres of cropland. In a normal year he will put up between 1,000 and 1,500 acres of alfalfa and native grasses for hay. Cows on the Mortenson Ranch are out in pasture until they calve, in March and April, and then supplemented with hay. A rotational grazing system is used so the cows are on the move quite frequently when the grass greens up. This system ensures the cows stay on a high nutritional plan in addition to protecting grasses from overgrazing. The calves are given shots in the spring at branding and again in August before they are weaned in September and October. At that time the steers are sorted off and shipped to a feedlot in Wessington Springs and the heifers are sent to a neighbor's operation where they are fed. The steers are sold as fat cattle in April and May. The heifers are kept as replacements with some being grass-fattened, sold, and marketed through EcoSun Prairie Farms in Brookings, South Dakota.

Todd is a member of the West Central Cattlemen's Association, the South Dakota Cattlemen's Association, and the National Cattlemen's Beef Association. He also volunteers as an EMS First Responder and member of the Hayes volunteer fire department.

The most rewarding part raising livestock for Todd is constantly being challenged to make what he is raising fit into the rhythms of nature. Working to improve the environment while simultaneously getting the most out of livestock is a tremendous balancing act.

Todd hosts tours every year for those interested in learning more about ranch life, and hopes that when people leave the ranch they have seen that a healthy landscape that leads to healthy wildlife and healthy livestock.



Testimony
on behalf of the

National Cattlemen's Beef Association

with regards to
"Legislative Hearing on S. 2421, the Fair Agricultural Reporting Method Act"

submitted to the
United States Senate
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
Committee on Environment and Public Works
Mike Rounds, Chairman

submitted by
Todd Mortenson
Mortenson Ranch
Member
National Cattlemen's Beef Association

March 8, 2018
Washington, DC



Good morning, my name is Todd Mortenson. I live with my wife Deb on a ranch located in west central South Dakota in Stanley County, along the Cheyenne River. My grandfather, Ben Young, started the home ranch in the 1930s and added ground in Ziebach county when the Oahe dam was built, flooding their bottom lands in the late 1950s.

I am a member of the South Dakota Cattlemen's Association and the National Cattlemen's Beef Association, and I'm testifying before you today representing cattle producers and family ranchers, each of whom have a stake in protecting the environment. Thank you, Chairman Rounds and Ranking Member Booker, for allowing me to testify today on the issue of CERCLA reporting for agriculture, and the importance of the FARM Act.

American cattlemen own and manage considerably more land than any other segment of agriculture— or any other industry for that matter. Ranchers graze cattle on approximately 666.4 million acres of the approximately two billion acres that makes up the United States' land mass. In addition, the acreage used to grow hay, feed grains, and food grains add millions more acres of land under cattlemen's stewardship. Some of the biggest challenges to our industry come from urban encroachment, natural disasters, and government overreach. Since our livelihood is made on the land, through the utilization of our natural resources, protecting the land not only makes good environmental sense; it is fundamental for our industry to remain strong. Cattle producers pride themselves on being good stewards of our country's natural resources. We maintain open spaces, healthy rangelands, provide wildlife habitat and feed the world. But to provide all these important functions, we must be able to operate without excessive federal burdens, like the one we are discussing today.

Farmers and ranchers truly are America's original environmentalists. In fact, I would say we care more than anyone about the land we manage, because our operations directly impact not only the health of our livestock, but the water we drink and the air we breathe. I work hard to implement conservation practices that improve the environmental sustainability of my operation, ensuring that I'll be able to pass my ranch on to the next generation. For example, we move cattle to the uplands during summer months, allowing increased native plant growth and decreased sediment flow through ranch creeks. Additionally, in the spring, our herds graze on grasses in riparian areas while stamping seeds into the ground to help increase future vegetation growth.

While I fully support conservation practices that benefit and improve environmental quality, I cannot support needless requirements that burden the agricultural community while providing no environmental or public health benefit. A prime example of this is the burdensome reporting requirement under CERCLA, which requires farmers and ranchers to report manure odors to multiple agencies within the federal government for emergency response coordination. On my pasture-based cow/calf operation, I manage 1,295 cattle on 19,000 acres of land. The concentration of emissions is extremely low, because my cattle are spread over such a large area. However,

CERCLA reporting requirements do not take concentration into account – only release. It makes no difference whether my cattle are spread over 10 acres or 10,000 acres. If my 1,295 cattle emit over 100 pounds of ammonia or hydrogen sulfide per day, I am required to report their emissions to the US Coast Guard and EPA. Our best estimation of how many beef cattle it takes to trigger the reporting requirement is 208 head of cattle. Clearly, I would fall under these reporting requirements.

It is clear that Congress never intended this law to govern routine manure odors from everyday farm and ranch activity. The EPA understands this and, in 2008, exempted agricultural operations from reporting requirements under the Superfund law. While the exemption was put in place by the Bush W. Administration, it was defended in court by the Obama Administration for eight years. In defending the exemption, the Obama EPA argued that Congress did not include an exemption for manure emissions because they never considered that these low-level releases would fall into the possible realm of regulation. However, in April 2017, environmental groups won their lawsuit when the D.C. Circuit court found that Congress provided no exemption for agriculture. When the mandate issues on May 1, 2018, over 200,000 farmers and ranchers will be required to report low-level manure odors to the federal government.

Reporting is no simple task. It is a three-step process that spans, at minimum, one year. The first step is an initial call to the Coast Guard, the agency tasked with coordinating emergency response for the nation's oil spills, chemical plant explosions, and other hazardous emergencies. The Coast Guard is on record stating that these reports do not help them at all – in fact, they only hurt their ability to respond to true environmental and public health emergencies. In a November 14, 2017 declaration to the D.C. Circuit Court, Director of Incident Management and Preparedness for the USCG Dana Tulis indicated that early reports from livestock operations "increased [call volume] from approximately 100-150 calls per day (not associated with air releases from farms) to over 1,000 phone calls per day."¹ This influx of non-emergency reports negatively impacts the Coast Guard's ability to coordinate response for true emergencies. The Coast Guard further indicated the abundance of farm calls meant that "wait times have been up to two hours for calls, many of which require immediate attention."

The initial call to the Coast Guard is followed by two written reports sent to the EPA, over the span of one year. These reports require specific, detailed information regarding my cattle's emissions – information that I simply don't have. Research in this area is limited, to say the least. Only two land-grant universities have completed studies related to calculating emissions from livestock on a per-pound basis, and the EPA has completed no research in the area.² Further, those who are considered experts in this area are not confident that available reporting methodologies

¹ Tulis Aff. 2 (*Waterkeeper Alliance v. EPA*, 853 F.3d 527 (2017)).

² R. Stowell and R. Koelsch, *Ammonia Emissions Estimator*, University of Nebraska-Lincoln (2009); S. Preece, N. Cole, and B. Auvermann, *Ammonia Emissions from Cattle Feeding Operations*, Texas A&M (2012).

should be widely depended upon. According to Dr. Rick Stowell, co-creator of the University of Nebraska Lincoln's Ammonia Estimator Worksheet, "While I can place some confidence in differentiating between a 1,000-head feedlot and a 200-head feedlot, given all of the variability involved on AFOs and in research, I would not place much confidence in saying that a 300-head lot is definitely emitting more NH₃ than the neighboring 200-head lot or that we can be certain that either is above or below the threshold."³ For pasture-based livestock, no research exists quantifying per-head ammonia or hydrogen sulfide emissions. However, research does indicate that ammonia emissions differ significantly based on diet and confinement. Requiring pasture-based operations to report using tools provided on EPA's webpage (research that focuses exclusively on grain-fed animals) is inadequate, and will lead to substantially inaccurate reporting. It should also be noted that this reporting requirement is not a "one and done" obligation. Any time I decide to increase the size of my herd, I have to file additional paperwork with the government.

In addition to concerns I have related to the accuracy of my reports, I also worry that I will be providing my specific residential location information to the EPA – an agency with an established record of farm location information misuse. The widespread collection and dissemination of farm location information by the government will put the privacy of producers and safety of our food system at risk, as individuals will have unfettered access to farm and residential location data. Many of the families who manage livestock operations live on their farms, so any data required by the government, like the data required for CERCLA reporting, creates a situation ripe for abuse.

To clarify these exemptions, Congress needs to change the law to reflect its intent that livestock producers are exempt from CERCLA reporting requirements. The FARM Act, introduced on February 13, 2018, provides the relief that farmers, ranchers, and first responders need under CERCLA, and carries strong bipartisan support, as was exhibited by the Bush and Obama Administrations. In 2018, its not often that Republicans and Democrats can agree on anything, and I for one am proud of you all for putting aside your differences and making your constituents a priority. CERCLA truly is one of our most vital environmental statutes – it provides the tools we need to efficiently and effectively cleanup releases that harm both the environment and public health. Unfortunately, we all know that environmental agencies are given low funding priority at both the federal and state level. The FARM Act will ensure that precious time and monetary resources are not siphoned from important cleanup efforts to address a paperwork requirement with no environmental or public health benefit.

In addition to maintaining my ranch, I also volunteer with the Hayes volunteer fire department and EMS First Responder in Stanley County, South Dakota. While I did not receive EPCRA reports from agricultural operations in 2009, because there are no large CAFOs in my county, the receipt of this paperwork would in no way improve my ability to do my job as an emergency responder.

³ Statement made by Dr. Rick Stowell in an email to Scott Yager, Chief Environmental Counsel for the National Cattlemen's Beef Association (Communication on November 7, 2017).

Rather, like the CERCLA reporting requirements, it would impose a burdensome paperwork requirement with no environmental or public health benefit. Rural emergency response teams are already stretched for time and resources – requiring additional, needless paperwork would only compound this burden.

Thank you for taking the time to hear my concerns, and for listening to livestock producers around the country. As the May 1, 2018 reporting deadline quickly approaches, only Congress can ensure that the agricultural community is protected from this reporting burden, the reliability of our emergency response coordination is maintained, and the integrity of the Superfund law is not degraded. The key to environmental sustainability is working together with stakeholders, not fighting us. Thank you for your time, and thank you for your support of the FARM Act.

Senate Committee on Environment and Public Works
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
Hearing entitled, "Legislative Hearing on S. 2421, the Fair Agricultural Reporting Method Act."
March 8, 2018
Questions for the Record for Todd Mortenson

Chairman Barrasso:

1. Mr. Mortenson, in Wyoming we have instances where cattle is owned by one individual, managed by another individual, and grazed on leased lands owned by a third entity. In Wyoming and across the West, this third entity is often a federal agency. In such a scenario, has EPA provided you, or other producers within your association, with guidance on whether the owner, the manager, or the landowner is responsible for reporting requirements in these situations?

This is a standard that remains unclear. However, the EPA has indicated in conversation that, because ranchers own the object that creates the emissions (the cattle), they will be the ones required to report.

2. Mr. Mortenson, pursuant to a D.C. Circuit Court mandate, EPA is set to begin enforcement of animal waste air emissions at farms and ranches on May 1st. However, EPA's reporting factsheet, which is intended to guide agricultural operations through the reporting process, states: "[I]t will be challenging for farmers to estimate releases because there is no generally accepted methodology for estimating these emissions at this time." Farmers and ranchers want to comply with the law. But have they been provided enough direction or clarity to enable them to do so?

The EPA has taken measures to ensure that livestock owners can access compliance information which will help them to report. Unfortunately, research does not exist which allows livestock operations to accurately report their emissions. This is not a failure of academia or the EPA, it just illustrates that there is no one-size-fits-all solution when it comes to regulation and management of the agricultural industry.

3. Mr. Mortenson, in the 2008 EPA rulemaking which provided reporting requirement exemptions for animal waste emissions at farms and ranches under CERCLA and EPCRA, the agency determined that limiting the scope of reporting under those two laws would reduce the time burden on farms and ranches required to report by 1,290,000 hours over a 10-year period. Do you, or the producers within your association, have the ability to spend 1,290,000 hours attempting to comply with these laws?

Mr. Chairman, during the March 8 hearing on the FARM Act, I noted that EPA's website anticipates that the reporting requirement will take approximately 10 hours to complete. Owning and managing a ranch, or any livestock operation for that matter, is not just a full-time job, it's a lifestyle. I don't have an extra 10 hours to sit down and complete paperwork at the end of a 14-hour day.

4. Mr. Mortenson, how important is it that we enact the Fair Agricultural Reporting Method Act?

I cannot overstate the importance of passing the Fair Agricultural Reporting Method Act into law. Not only will this burdensome paperwork requirement harm the agricultural industry by preventing us from doing our jobs, but will severely inhibit the Coast Guard's ability to respond to legitimate chemical emergencies. Not only that, but Administrator Pruitt has specifically targeted Superfund cleanup as a top priority for the EPA under the Trump administration. Siphoning limited funds to manage paperwork directly contradicts this mission.

Thankfully, the omnibus funding bill passed into law on March 23, 2018 included the FARM Act. Thank you, Chairman Barrasso, for your leadership and support in passing this important legislation into law.

Senator Ernst:

5. In your testimony, you stated that reporting is "no simple task." Can you go into more detail about this three-step reporting process? What specific information are you required to compile and report? How long does it take?...and so on. I know this is an unnecessary requirement and I want to get a better understanding of the specific burdens it puts on farmers and ranchers.

Reporting is a three-step process. The first step is an initial phone call to the U.S. Coast Guard's National Response Center (NRC). When the D.C. Circuit Court issues its mandate, operations will be required conduct an initial notification. This must be done through a telephone call to the NRC at 1-800-424-8802. The telephone call must include 1) Your name, 2) the operation's name, 3) location of the operation (City, State), and 4) that you are reporting an "initial continuous release notification" of ammonia and/or hydrogen sulfide. While this should be a fairly painless process, the overwhelming need for agricultural operations to report will overburden the NRC, disabling their ability to accept reports. In November, when some operations decided to report early, wait times skyrocketed to nearly two hours.

The second step is a written report to my EPA regional office. Reports are required to be submitted within 30 days of your initial phone call to the NRC. This report is more comprehensive, and requires mailing in signed documentation. EPA's reporting form is available on their website. EPA requires that operations submit a "lower bound" and "upper bound" for emissions. The biggest issue with this requirement is that I simply do not have access to research that would allow me to report emissions accurately.

Finally, I'll be required to submit a one-year anniversary report to my EPA Regional Office. To confirm that a release is truly "continuous," the EPA requires that operations submit a follow-up report one year after the initial written report. To fulfill this requirement, fill out the same form and send it in to your EPA Regional Office.

6. What sort of fines, litigation, or other penalties can a farmer be subject to if they fail to adhere to the reporting requirement?

Liability for failure to report is the same as liability for a hazardous release. Therefore, I could be fined up to \$53,000 every day that I go without reporting my emissions.

Thankfully, the omnibus funding bill passed into law on March 23, 2018 included the FARM Act. Thank you, Senator Ernst, for your support in passing this important legislation into law.

Senator ROUNDS. Thank you, Mr. Mortenson.
 We will now turn to our second witness, Mr. Bill Satterfield.
 Mr. Satterfield, you may begin.

**STATEMENT OF BILL SATTERFIELD, EXECUTIVE DIRECTOR,
 DELMARVA POULTRY INDUSTRY, INC.**

Mr. SATTERFIELD. Good morning, Chairman Rounds, Ranking Member Booker, Mr. Van Hollen, and Senator Carper. Thank you for the trip down memory lane. What I do not recall is whether I charged you for that milkshake.

[Laughter.]

Senator CARPER. Paid in full.

Mr. SATTERFIELD. I am Bill Satterfield. I am the Executive Director of Delmarva Poultry Industry Incorporated, which is the trade association for the meat chicken industry in Delaware, the eastern shore of Maryland, and the eastern shore of Virginia. On behalf of America's chicken, turkey, and egg farmers, I thank the leadership of this Committee and our Delmarva Peninsula Senators for introducing the FARM Act. As you have heard, this will restore the CERCLA reporting requirement exemption to the limited purpose, which was never intended to be low level air emissions from animal manure emissions.

The FARM Act is needed because EPA's original farm reporting exemption was challenged in court, and in its decision the court adopted a strict reading of the CERCLA statute and concluded that Congress did not authorize EPA to create the exemptions. Therefore, failure to amend the CERCLA statute now to remove the reporting requirement for farm air emissions reporting will subject, as we have heard, 200,000 farmers or more to these reporting requirements. Congress needs to clarify its intent immediately. The FARM Act will do this.

While CERCLA is a valuable tool to protect the public and the environment from accidental releases of hazardous substances, it is hard to believe it was ever the intent of Congress to extend the reporting requirements to farms that incidentally release ammonia that is generated as manure decomposes. This guided our 2005 petition requesting an exemption from CERCLA reporting.

After considering the request, EPA developed a rule that provided a narrow exemption for farms for reporting low level continuous releases of ammonia and hydrogen sulfide. EPA's exemption was based on Congress's intended purpose of notifying the National Response Center only when a truly hazardous substance is released. The NRC and the Coast Guard have indicated on several occasions that they did not intend to do anything with the information.

While it is true that ammonia, which in significant concentrations and volumes is a substance reportable under CERCLA, it is a by-product of manure decomposition. The concentrations on poultry farms are at very low levels, and they dissipate rapidly into the air.

University of Georgia researchers, in 2009, found that ammonia concentrations were lower as distance from the poultry houses increased. At no time during that study did the measured ammonia levels meet or exceed OSHA's ammonia odor detection threshold

levels, and this underscores EPA's rationale for providing the exemption in 2008. Similarly, we cannot imagine that local emergency response agencies, if they even get this information, would do anything other than scratch their head and say, what are we supposed to do now?

The EPA's anticipation on reporting concerns was entirely correct. In November of last year poultry farmers from the Delmarva Peninsula and other parts of the country attempted to initiate the then required CERCLA reporting process. One such grower is Sharon, who operates a poultry farm near Marydel, Maryland, just across the border from Delaware.

Upon calling the NRC to provide an initial notification of a continuous release, a recording informed her that NRC would not be accepting telephone notifications. And as feared, as Senator Fischer was saying, the system was overloaded. The reporting to Sharon told her to submit the initial response in e-mail form.

Well, you need to understand that many farmers do not use e-mail, do not have e-mail, so requiring e-mail notification is not practical and could result in these farmers—wishing to be compliant with the law—being in violation. Sharon is 73 years old; never has owned a computer, never used e-mail, so that was not an option for her.

That is just one example of the numerous breakdowns in the reporting system starting last November. This indicates that the NRC did not recognize these reports as emergencies that require an immediate response or action.

Requiring the emissions monitoring is difficult. Calculating air emission levels is very complicated, and it is hard to do, and there needs to be a whole lot more research on how do you do it, because chicken houses differ, the age of the birds have a factor, the age of the litter material, the weather, the treatment of the birds inside the house all play factors.

So, simply put, CERCLA was never intended to force farmers to report low level emissions from normal, everyday agricultural operations.

On behalf of Delmarva Poultry Industry Incorporated and the entire poultry industry nationwide, we thank the Committee and its members for introducing this Act. This bill will put enormous regulatory relief to countless farmers across America without sacrificing human health and will give them more time to focus on their vocation, which is producing food for America and the world.

I appreciate the opportunity to testify and would be happy to answer any questions at any time. Thank you.

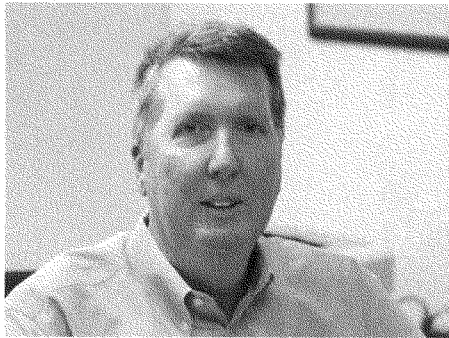
[The prepared statement of Mr. Satterfield follows:]

Bill Satterfield – Executive Director
Delmarva Poultry Industry, Inc.
Georgetown, Delaware

Delmarva Poultry Industry, Inc. is the non profit trade association working for the continued progress of the meat chicken industry in Delaware, on the Eastern Shore of Maryland, and the Eastern Shore of Virginia.

Bill has been with Delmarva Poultry Industry, Inc. since 1986, serving as executive director since January 1993. In addition to management responsibilities for the 1,800-member organization, he has spent most of his time in recent years on government relations, environmental, and outreach programs.

Prior to that, he was a radio farm news reporter in Salisbury, Maryland for 3 years and prior to that he was a radio news reporter/news director in Dover, Delaware where he was born and raised, and was a reporter for WCAU radio in Philadelphia.



Written Testimony of Bill Satterfield
Senate Committee on Environment and Public Works
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
March 8, 2018

Good morning, Chairman Rounds, Ranking Member Booker and members of the subcommittee. I am Bill Satterfield and I am the Executive Director of the Delmarva Poultry Industry Inc., an 1,800-member trade association working for the meat chicken industry in Delaware, the Eastern Shore of Maryland, and Virginia's Eastern Shore. On behalf of America's chicken, turkey and egg farmers, I thank Senators Fischer, Donnelly, Heitkamp, Chairman Barrasso and Subcommittee Chairman Rounds for introducing the Fair Agricultural Reporting Method Act (FARM Act). I also extend a special thanks to our Delmarva Peninsula Senators, Ranking Member Carper, Senator Coons and Senator Warner for their leadership on this issue and their support of the poultry farmers on the Delmarva Peninsula. This significant breakthrough legislation will restore the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) reporting requirements to their intended purpose which was not low-level animal manure emissions. We in the poultry industry look forward to working with the committee to enact this united legislative effort that has been nearly 15 years in the making.

This piece of legislation is needed because EPA's original exemption was challenged in court and in its decision the court adopted a strict reading of the CERCLA statute and concluded that Congress did not authorize EPA to create the exemptions it did. Therefore, failure to amend the CERCLA statute to remove the reporting requirement for emissions of animal manure will subject thousands of poultry and egg farmers to a paperwork exercise that has no environmental or health benefit to the public. In fact, we estimate that more than 200,000 or more farmers and ranchers could be to be subjected to these reporting requirements if this bi-partisan legislation is not enacted into law. To prevent practical reversal of this important rule and expedite emergency response personnel's ability to respond to genuine hazardous releases and emergencies, Congress needs to act to clarify its intention and the FARM Act will effectively codify the EPA's vacated standard. The poultry industry and all of animal agriculture look forward to working with Congress to pass this legislation immediately and avoid unjustified reporting.

As you know, CERCLA was enacted by Congress in December 1980 to provide broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Section 103 of the CERCLA statute requires any person in charge of a facility to report the release of a hazardous substance in a quantity that meets or exceeds the reportable quantity in any 24-hour period for the hazardous substance released. Immediately upon gaining knowledge of a reportable release the person in charge must notify the National Response Center (NRC) which the Coast Guard oversees and is charged with handling reports of tanker, pipeline, and other significant volumes that are truly an emergency. Section 103(f)(2) provides a mechanism for reporting continuous releases of hazardous

substances that exceed the reportable quantity. There is also a continuous release reporting protocol that requires the person in charge to notify the NRC immediately upon gaining knowledge of a continuous release. Following the initial notification to the NRC, the person in charge must submit a written notification to regional EPA office within 30 days of the initial notification. Finally, the person in charge must submit a follow-up report within 30 days of the anniversary of the initial written report. If the facility undergoes any modification that increases the releases significantly, they must report those releases in a new report. All of these requirements for a normal agriculture operation was not the intent of CERCLA and provides no additional benefit to the public.

While CERCLA is a highly valuable tool that helps to protect the public and the environment from accidental releases of hazardous substances; as stated above, it is hard to believe it was the intent of Congress to extend the reporting requirements to farms that incidentally release ammonia that is generated as manure decomposes. This belief guided the poultry and egg industry's petition to the Environmental Protection Agency in 2005 requesting an exemption from CERCLA reporting. After considering the request and proposing a rule that followed the requirements of the Administrative Procedures Act, EPA developed a rule that provided a narrow exemption for farms that raise animals from reporting low level continuous emissions of ammonia and hydrogen sulfide into the air. EPA's rationale for providing the exemption was based on Congress's intended purpose of notifying the NRC when a truly hazardous substance is released and then the likelihood that a response to that notification would be acted upon by any government agency based on that information. EPA noted that it has never initiated a response to any NRC notifications of ammonia, hydrogen sulfide, or any other hazardous substances released to the air where animal manure at farms is the source of that release, and it should be noted that the NRC and the Coast Guard have indicated on several occasions that they do not intend to do anything with this information if the court ultimately rules to move forward with reporting animal farms.

While it is true that ammonia, which in significant concentrations and volumes is a substance reportable under CERCLA, it is a byproduct generated as manure naturally decomposes. The concentrations that occur on poultry and eggs farms are at very low levels and they dissipate rapidly into the air. A 2009 study by researchers at the University of Georgia found that ammonia concentrations were lower as distance from the poultry house increased, with ammonia levels at 100, 200, 300 and 500 feet being less than 1 part per million in approximately 60, 75, 85 and 90 percent of the observations taken during the study, respectively. Researchers found that at no time during the study did the measured ammonia levels meet or exceed the Occupational Safety and Health Administration – USEPA ammonia odor detection threshold values. This study underscores EPA's rationale for providing the exemption in 2008 because it could not foresee the agency initiating a response as a result of any such notification. Similarly, we cannot imagine that local emergency response agencies would do anything from such notifications, if they receive them, other than scratch their heads and wonder what they are supposed to do.

As it turns out the Agency's anticipation was entirely correct. In November of 2017, a handful of poultry producers from the Delmarva Peninsula and other parts of the country attempted to initiate the CERCLA reporting process before the court issued the reporting mandate because they were fearful of potential violations. One such producer is Sharon who operates a poultry farm near Marydel, Maryland. Upon telephoning the NRC to provide an initial notification of a continuous release, she heard a recording informing her that the NRC would not be accepting telephone notifications. As feared, the NRC was not capable of handling the increased call volume prompted by the reporting requirement. The recording further directed her to submit the initial notification by email to the NRC. You need to understand that many of our farmers members do not have or use email regularly, so requiring an email notification is not practical and could result in farmers wishing to be compliant to be in violation of the CERCLA statute. Sharon is 73 years old and never has owned a computer or used email, so this was not an option for her. We received several telephone calls from our members that week with similar messages and concerns, including one that tried sending the email several times in one day, received an error message each time, and then was not able to reach anybody by telephone. This course of action by the NRC verifies that the Center fails to recognize the report as an emergency that requires a response, much less an immediate action. Further, it demonstrates the entire process is nothing more than an exercise in paperwork that could distract the NRC and other emergency response personnel from focusing on incidents that truly need emergency attention.

While the reporting requirements sound uncomplicated, just the opposite is true. In fact, the many variables that affect the generation of ammonia make calculating emission values very complicated. To address this issue in 2007, the animal agriculture industry funded the National Air Emissions Monitoring study hoping to develop emission factors that would allow poultry and livestock producers to calculate emissions on their farms. From 2007 until 2009, numerous data points, including ammonia concentration and volume, were collected each minute for the study. While the data collected to develop estimation methodologies was informative, the scientific advisory committee established by EPA to review the process determined that the data lacked the robustness to develop any verifiable test for farmers to report given the many variables that contribute to the generation of ammonia as animal manure decomposes. Despite recognizing this, EPA's current guidance documents, as required by the court order, indicate the need for poultry and egg producers to calculate emissions generated on their farm. Specifically, the reporting forms provided by EPA require a farmer to report a lower threshold of emissions, an upper threshold of emissions, and total quantity released over the past year – all values that are virtually impossible to calculate with any certainty. Simply put, CERCLA was never intended to force farmers and ranchers to report low level emissions from normal everyday agricultural operations.

On behalf of the Delmarva Poultry Industry Inc., and the entire poultry industry, I thank this committee for introducing the "Fair Agricultural Reporting Method Act." This bill will provide enormous regulatory relief to countless poultry and livestock farmers across America and give

them more time to focus on their vocation - producing an economical, safe and wholesome supply of food for the United States and the world.

I appreciate the opportunity to provide this testimony and I am happy to answer any questions you may have.

Senate Committee on Environment and Public Works
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
Hearing entitled, “Legislative Hearing on S. 2421, the Fair Agricultural Reporting Method Act.”
March 8, 2018
Questions for the Record for Bill Satterfield

Chairman Barrasso:

1. Mr. Satterfield, pursuant to a D.C. Circuit Court mandate, EPA is set to begin enforcement of animal waste air emissions at farms and ranches on May 1st. However, EPA’s reporting factsheet, which is intended to guide agricultural operations through the reporting process, states: “[I]t will be challenging for farmers to estimate releases because there is no generally accepted methodology for estimating these emissions at this time.” Farmers and ranchers want to comply with the law. But have they been provided enough direction or clarity to enable them to do so?
 - A. The EPA had not, at the time of the March 8 hearing, provided enough direction or clarity to enable farmers and ranchers to comply with the CERCLA reporting law. Changes to the instructions by the EPA over the course of several months made it difficult for farmers to know how to report let alone to determine what to report and what formula to use to determine if their farm was required to report.
2. Mr. Satterfield, in the 2008 EPA rulemaking which provided reporting requirement exemptions for animal waste emissions at farms and ranches under CERCLA and EPCRA, the agency determined that limiting the scope of reporting under those two laws would reduce the time burden on farms and ranches required to report by 1,290,000 hours over a 10-year period. Do you, or the producers you represent, have the ability to spend 1,290,000 hours attempting to comply with these laws?
 - A. Our farmers, already burdened with state, federal, and local statutory and regulatory reporting requirements on a variety of topics, are spending too much time filling out forms and taking away from the time they have to do what they intend to do... grow chickens. Especially annoying to our members was the need submit an initial report to the U.S. Coast Guard and the EPA, followed by an update on an annual basis, to report information that really would have little value to these two agencies and the emergency response agencies that might receive it should ammonia emissions exceed 100 pounds per day. The CERCLA statute was designed for emergency responses and not for the collection of data on ammonia emissions from farms as the result of the natural decomposition of chicken manure and bedding material.

3. Mr. Satterfield, how important is it that we enact the Fairness for Agricultural Reporting Method Act?
 - A. At the time of the March 8, 2018 subcommittee hearing, it was quite important for the FARM act to be enacted. Now, it is not important because the language of S. 2421 was incorporated in the Consolidated Appropriations Act, 2018 (H.R. 1625) that was signed into law by President Trump on March 23, 2018.

Senator Ernst:

4. What sort of fines, litigation, or other penalties can a farmer be subject to if they fail to adhere to the reporting requirement?
 - A. It is my understanding that failure to report under the CERCLA statute can result in a \$55,907 per day civil penalty with a second violation with repeat enforcement now at \$167,722. Additionally, it is my understanding that there could be a three year prison sentence.

Senator ROUNDS. Thank you, Mr. Satterfield.
 We will now turn to our third witness, Mr. Kuhn.
 Mr. Kuhn, you may begin.

**STATEMENT OF MARK KUHN, FLOYD COUNTY SUPERVISOR,
 FLOYD COUNTY, IOWA**

Mr. KUHN. Thank you, Chairman Rounds and Ranking Member Booker, for inviting me to address the Subcommittee, and welcome from Iowa, hello from Iowa, Senator Ernst, the Hawkeye State.

I am a farmer and current member of the Board of Supervisors from Floyd County, Iowa. I served six terms as a State representative and was one of 12 legislators who drafted the last major change to Iowa's confined animal feeding law in 2002. I know how essential it is to monitor air emissions from CAFOs and why results should be shared with neighbors, communities, and emergency responders.

According to Iowa State University, Iowa's hogs, cattle, and poultry produce a combined total of 50 million tons of manure each year. Amid growing concerns about public health and the environment in 2001 Iowa Governor Tom Vilsack asked the College of Agriculture at Iowa State University and the College of Public Health at the University of Iowa to provide guidance regarding the impact of air quality surrounding CAFOs on Iowans and recommended methods for reducing and/or minimizing emissions.

Based on an analysis of peer reviewed, duplicated, legitimate, and published scientific research, the consensus of the entire study group was that hydrogen sulfide and ammonia should be considered for regulatory action. Both of these gases have been measured in the general vicinity of livestock operations at concentrations of potential health concern for rural residents under prolonged exposure.

In April 2002 Governor Vilsack signed new livestock regulations into law giving the Iowa Department of Natural Resources authority to develop air quality rules and monitor CAFOs. During the next 2 years three attempts by the DNR to establish regulations for hydrogen sulfide and ammonia were nullified after strong opposition from the CAFO industry.

In March 2004 the industry introduced through friendly legislators a bill to set air emission standards. The bill was passed by the legislators, but vetoed by Governor Vilsack. In his veto message, Vilsack stated the bill represented a significant step backward because it would not adequately protect the health of Iowans, and it would set a standard so lenient it would undermine the credibility of the CAFO industry.

Nothing has changed in Iowa since the joint university report 16 years ago, with two key exceptions: Iowa has more than four times as many CAFOs as they did then, and the pork industry is about to go hog wild again. An unprecedented increase in packing plant capacity in Iowa, fueled by the demand for exported pork to China, will likely result in an onslaught of new CAFOs.

It is clear to me that the CAFO industry is opposed to any air emission regulations. It intends to continue business as usual as long as State elected officials in Iowa allow it. This isn't a rural

versus urban issue; it affects all Iowans. It pits neighbor versus neighbor all too often. It pits farmer versus farmer.

Please be assured these reporting requirements do not affect small family farms. The CAFO industry is industrialized factory farm agriculture. It is vertically integrated from top to bottom; giant corporations get the profits from the hogs they own and process at their packing plants, local farmers build the barns and get the manure, while neighbors get the pollution.

A preponderance of evidence shows that toxic air emissions from CAFOs can adversely affect immediate neighbors and nearby communities. Those with allergies, asthmatics—especially children, in which asthma is more common—and adults with COPD are at particular risk.

In Iowa it takes a good neighbor to be a good neighbor. I will close with the story of one good neighbor family in Floyd County. Jeff and Gail Schwartzkopf bought a house in the country near the small town of Rudd 4 years ago. Thirty days after they moved into their new home they learned a large CAFO was going up 1,987 feet south of them. Once it was built and populated with thousands of squealing pigs, their lives changed forever.

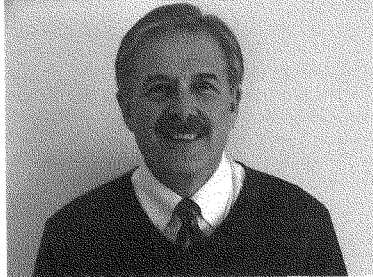
According to Gail, “We tried to make the best of it, but nothing worked. We stopped enjoying the outdoors. We hate the stench, the biting flies, our burning eyes, scratchy throat, fatigue, digestive issues, and insomnia because we worry about our health. We can’t open our windows or hang our clothes on the line to dry. There are only 5 or 6 days out of a month when it doesn’t smell like rotten eggs.”

The Schwartzkopf family is surrounded by three large CAFOs. They should be protected from toxic air emissions that impact their health and diminish their quality of life, but Iowa lawmakers refuse to act. So now it is up to you to protect their access to air emission information under both CERCLA and EPCRA.

This is a picture of Gail and her family, and the view from their front yard. The last thing Gail told me before I left for Washington, DC, was “I wish this picture was scratch and sniff so all those Senators could partake of the toxic emissions and polluted air if only for a little while.”

Thank you for listening.

[The prepared statement of Mr. Kuhn follows:]



Mark Kuhn
Floyd County Supervisor
Charles City, Iowa

Mark Kuhn, 67, has been a part-owner/operator of the Kuhn family corn and soybean farm since 1973. He served on the Floyd County, Iowa Board of Supervisors for six years prior to being elected to the Iowa House of Representatives in 1998. He served six terms as a state representative and was

the ranking member of the House Agriculture Committee, vice-chair of the House Appropriations Committee, and co-chaired the Agriculture and Natural Resources Budget Appropriations Subcommittee. After retiring from the Iowa House in 2010, he was elected to the Floyd County Board again and is currently serving his second four-year term.

Written testimony of Floyd County, Iowa Board of Supervisor member Mark Kuhn

March 8, 2018

Senate Committee on Environment and Public Works

Subcommittee on Superfund, Waste Management, and Regulatory Oversight Hearing

S. 2421, the Fair Agricultural Reporting Method Act.

Thank you, Chairman Rounds and Ranking Member Booker, for inviting me to testify before the Subcommittee on Superfund, Waste Management, and Regulatory Oversight regarding S. 2421, the Fair Agricultural Reporting Method Act.

I am a farmer and current member of the Board of Supervisors from Floyd County, Iowa. I served six terms as a state representative and was one of 12 legislators who drafted the last change to Iowa's concentrated animal feeding law in 2002.

In Iowa, it takes a good neighbor to be a good neighbor. I'll begin my written testimony with the story of one good neighbor family in Floyd County.

Jeff and Gail Schwartzkopf bought a house in the country near the small town of Rudd four years ago. Thirty days after they moved into their new home they learned a large Concentrated Animal Feeding Operation (CAFO) was going up 1,987 feet from them. Once it was built and populated with thousands of squealing hogs, their lives changed forever.

According to Gail, "We tried to make the best of it, but nothing worked. We stopped enjoying the outdoors. We hate the stench, the biting flies, our burning eyes, scratchy throat, fatigue, digestive issues, and insomnia because we are worried about our health. We can't open our windows or hang our clothes on the line to dry. There are only five or six days a month when it doesn't smell like 'rotten eggs.'

The Schwartzkopf family is surrounded by three large CAFO's. They should be protected from toxic air emissions that impact their health and diminish their quality of life, but Iowa lawmakers refuse to act. So now it's up to you to protect their access to toxic air emission information from CAFO's under the Emergency Planning and Community Right-to-Know Act (EPCRA).

I know how important it is to monitor dangerous air emissions from CAFO's and why results from that monitoring should be required under EPCRA.

Iowa is the nation's leading pork and egg producer, and ranks second nationally in red meat production. There are 22.4 million hogs (almost 32% of the nation's total), 3.9 million cattle, 60 million chickens, and 11.7 million turkeys raised in Iowa. The livestock industry is vital to Iowa's economy.

According to Iowa State University, Iowa hogs, cattle and poultry produce a combined total of 50 million tons of manure every year.

Amid growing concerns in 2001, Iowa Governor Tom Vilsack asked the College of Agriculture at Iowa State University and the College of Public Health at the University of Iowa to provide guidance regarding the impact of air quality surrounding CAFO's on lowans and recommended methods for reducing and/or minimizing emissions. (See Appendix 1 – Iowa Concentrated Animal Feeding Operations Air Quality Study, Executive Summary) – https://www.public-health.uiowa.edu/ehsrc/CAFOstudy/CAFO_1.pdf

Based on an analysis of peer-reviewed, duplicated, legitimate, and published scientific research, the consensus of the entire study group was that hydrogen sulfide and ammonia should be considered for regulatory action. Both of these gases have been measured in the general vicinity of livestock operations at concentrations of potential health concern for rural residents, under prolonged exposure.

Hydrogen Sulfide – It was recommended that hydrogen sulfide, measured at the CAFO property line, not exceed 70 parts per billion (ppb) for a 1-hour time weighted average (TWA) period. In addition, the concentration at a residence or public use area shall not exceed 15 ppb.

Ammonia – It was recommended that ammonia, measured at the CAFO property line, not exceed 500 ppb for a 1-hour TWA period. The concentration at a residence or public use area shall not exceed 150 ppb.

It was recommended that each CAFO have up to seven days (with 48 hours notice) each calendar year to exceed those concentrations to allow for manure application to the land.

In April 2002, the Iowa Legislature approved and Governor Tom Vilsack signed into law new livestock regulations which gave the Iowa Department of Natural Resources (DNR) authority to develop air quality rules. I voted for this legislation because I was convinced that for the first time, the Legislature was committed to doing something about dangerous air emissions from CAFO's.

In July 2002, Iowa's Environmental Protection Committee (EPC) approved the ambient air quality standards recommended in the Iowa Concentrated Animal Feeding Operations Air Quality Study. The Iowa DNR held public hearings throughout the state to collect public comment on the proposed rules.

On April 21, 2003, the EPC approved a second version of the ambient air quality standards despite objections from the CAFO industry. The approved level for hydrogen sulfide was 15 ppb measured at the property line.

On April 30, 2003 the Iowa Legislature nullified the EPC rules which prevented the DNR from implementing air quality rules.

In January 2004, the EPC approved a third proposed rule that would have established a standard of 15 ppb for hydrogen sulfide with the ability to monitor within 900 feet of the separated distance.

In response to opposition to this proposed rule, Iowa's livestock industry introduced through friendly legislators, a bill setting hydrogen sulfide emissions at 70 ppb enforced at the separated distance.

I voted against the bill that was passed by the Legislature, and vetoed by Governor Vilsack. In his veto message Vilsack stated the bill represented a significant step backwards because it would not have adequately protected the health of Iowans, and it would have set a standard so lenient that it would undermine the credibility of the CAFO industry.

Despite failed attempts to pass meaningful air emission standards to protect the health of Iowans, nothing has changed in Iowa since Iowa Concentrated Animal Feeding Operations Air Quality Study was released 16 years ago, with two key exceptions.

Iowa has four times as many CAFO's as it did then, and the pork industry is about to go 'hog wild' again. An unprecedented increase in packing plant capacity in Iowa fueled by the demand for exported pork to China, will likely result in an onslaught of new CAFO's.

Last September, Seaboard Triumph Foods opened a packing plant in Sioux City, Iowa where it slaughters 10,500 hogs per day with plans to add a second shift to increase the kill to twice that number. Prestage Foods of Iowa plans to open its packing plant near Eagle Grove, Iowa in November 2018 and start processing 10,000 hogs a day.

It is clear to me that the CAFO industry is opposed to any new air emission regulations. It intends to continue 'business as usual' as long as state elected officials in Iowa allow it.

This isn't a rural vs. urban issue. It affects all Iowans. It pits neighbor vs. neighbor. All too often, it pits farmer vs. farmer. Please be assured small family farms will not be affected by any air emission reporting requirements. The CAFO industry in Iowa is industrialized, factory farm agriculture. It is vertically integrated from top to bottom. Giant corporations get the profits from the hogs they own and process at their packing plants; local farmers build the barns and get the manure; while neighbors get the pollution.

A preponderance of evidence shows that toxic air emissions from CAFO's can adversely affect immediate neighbors and nearby communities. Those with allergies, asthmatics -- especially children in which asthma is more common -- and adults with COPD are at particular risk.

I find it very alarming that the United States Environmental Protection Agency (EPA) recently issued a guidance document entitled 'Does EPA interpret EPCRA Section 304 to require farms to report releases from animal waste?' (See Appendix 2 -- EPA Guidance on EPCRA) --

https://www.epa.gov/sites/production/files/2017-10/documents/web_document_placeholder.pdf

If the EPA conducts a rulemaking as outlined in their guidance document, it will have dire consequences for 'good neighbors' like the Schwartzkopf's.

To understand the effect of such a rule on Iowans, you need to know about a bill passed by the Iowa Legislature and signed into law by Iowa Governor Terry Branstad in 2017.

According to a January 2018 report published by The Iowa Policy Project and authored by James Merchant and David Osterberg, "The new law limits damages that can be awarded to a person who wins a lawsuit against an animal feeding operation, under a claim that the CAFO is a public or private nuisance or an interference with another person's "comfortable use and enjoyment of the person's life or property." The new law limits damages that can be awarded to a person impacted by a CAFO to (a) any actual reduction in property value caused by the facility, (b) past, present, and future adverse health impacts as determined by objectively documented medical evidence and proven to be caused by the facility, and (c) any award for damages due to annoyance and the loss of comfortable use and enjoyment of the property to 1.5 times the sum of the property value and objective medical evidence of deterioration of health. By requiring "objectively documented medical evidence and proven to be caused by the facility" in question, this new law seeks to eliminate consideration of the substantial literature on CAFO exposures and causation of adverse health effect, disease and impairment."

EPCRA provides an essential safety net for protecting the air Iowans breathe. If the EPA eliminates EPCRA air emission requirements by rule, 'good neighbors' like the Schwartzkopf's will not be able to obtain toxic air emission reports, not be able to access information to provide their medical provider about their health issues, and be denied any chance for justice in Iowa against the powerful CAFO industry.

This is a picture of Gail and her family and the view from the Schwartzkopf's front yard.

The last thing Gail told me before I left for Washington, D.C. was, "I wish this picture was 'scratch and sniff' so all of those Senators could partake of the toxic emissions and polluted air, if only for a little while."



Appendix 1 -- Iowa's Concentrated Animal Feeding Operations Air Quality Study, Executive Summary
Iowa State University and the University of Iowa Study Group

**IOWA CONCENTRATED ANIMAL FEEDING OPERATIONS
AIR QUALITY STUDY**

Final Report

Iowa State University and The University of Iowa Study Group

February 2002

CHAPTER 1 Executive Summary

Introduction

In mid-June of 2001, Governor Tom Vilsack requested that the faculty of the two universities address the public health and environmental impacts of concentrated animal feeding operations (CAFOs, also referred to as Concentrated Feeding Operations or CFOs). In response to this request, Richard Ross, PhD, DVM, Dean of the College of Agriculture at Iowa State University and James Merchant, MD, DrPH, Dean of the College of Public Health at The University of Iowa, were asked by the Department of Natural Resources Director Jeffrey Vonk to provide guidance **“regarding the impacts of air quality surrounding CFOs on Iowans and recommended methods for reducing and/or minimizing emissions. Specifically, I am asking your advice and recommendations on how the Department of Natural Resources should address this critically important public policy issue.”**

Director Vonk asked five questions. Through a series of discussions and meetings, a combined study group of faculty and consultants (See Attachment 1) was identified, conflict of interest and confidentiality statements were signed by all faculty and consultants, definitions were discussed and agreed upon, a comprehensive report outline was developed and agreed upon and individual teams of faculty agreed to write each of the 10 chapters that constitute the full report. A technical and policy workshop was held in Des Moines on December 18 and 19, 2001, at which time chapter presentations were made and discussions were held regarding the series of five questions asked by Director Vonk. Groups were assigned to summarize the responses to these five questions in this Executive Summary. Peer review of this Executive Summary and the full report was considered to be vital to the validity and integrity of the report. This peer review, completed by national and international scientists who are experts in the areas addressed by the report (See Attachment 2), was completed in January, 2002. Their review comments, as well as comments from members of the combined study group, were discussed at meetings on January 8, 24 and 29 and were useful in completing the final report for submission to the Iowa Department of Natural Resources (IDNR). An agreed-upon glossary, which defines the many technical terms used in this report, is found in Attachment 3.

Response to Question 1

There are two questions contained in Question 1. The first is:

Based on analysis of peer-reviewed, duplicated, legitimate, published scientific research, is there direct evidence of harm to humans by emissions, byproducts, toxic waste, or infectious agents produced by CFOs?

There is now an extensive literature documenting acute and chronic respiratory diseases and dysfunction among workers, especially swine and poultry workers, from exposures to complex mixtures of particulates, gases and vapors within CAFO units. Common complaints among workers include sinusitis, chronic bronchitis, inflamed mucous membranes of the nose, irritation of the nose and throat, headaches, muscle aches and pains. Asthma and acute (cross-shift) declines in lung function are

documented among CAFO workers, even though workers with pre-existing asthma usually select themselves out of such employment because of increased asthma severity. Progressive declines in lung function over years are documented among CAFO workers. Those workers with increased acute declines in lung function, which are often accompanied by chest tightness and wheezing (asthma-like syndrome), have been found to have more rapid declines in lung function over time. Very high exposures to hydrogen sulfide, which occurs during pit agitation, may result in death from asphyxia and respiratory arrest; those who survive such high dose exposures often develop reactive airways distress syndrome (RADS), bronchiolitis obliterans and severe respiratory impairment. It is therefore concluded that there is direct evidence of harm to humans from occupational exposures within CAFOs (See Chapter 6.3.2).

However, one cannot directly extrapolate occupational health risks observed among workers inside CAFOs to community health risks that may arise from CAFO emissions. While the discharge of airborne particulates and gases/vapors from CAFOs and manure handling clearly occur, the aerosols at the point source differ from ambient exposures as they move downwind, both in composition and in concentration. The populations at risk (workers) within CAFO units and within the community (community residents) also differ significantly. CAFO workers are generally a healthy population (those fit enough to work), while community residents include children, the elderly, and those with preexisting impairments. Regulatory agencies recognize the need for lower exposure limits to compensate for increased susceptibility among community residents, to allow for uncertainty factors from epidemiological study findings (and for species to species differences when animal data is used) to establish community ambient exposure limits.

The second part of the first question is:

What human research is there to confirm the existence of disease and exactly what are the specific chemical, bacterial, or aromatic causes of such diseases?

Published, controlled studies of odor experienced by community residents living in proximity to CAFOs are limited to two studies in North Carolina and one in Iowa. The first North Carolina study reported more negative mood states (tension, depression, anger, reduced vigor, fatigue and confusion) among those exposed to CAFO odor compared with control subjects. The second North Carolina study reported increased symptoms of headache, runny nose, sore throat, excessive coughing, diarrhea, burning eyes and reduced quality of life measures among community residents living in proximity to a swine CAFO compared with rural residents not living in proximity to livestock operations. The Iowa study found increases in several symptom clusters, mainly eye and upper respiratory symptoms, among those living within two miles of a swine CAFO compared with rural residents living near minimal livestock production. These studies are limited in size and scope, did not make specific environmental exposure or odor measurements, and are subject to recall bias. They are notable in that they are controlled studies that report eye and respiratory symptoms associated with concentrated livestock exposures that are similar to more prevalent and severe symptoms experienced by CAFO workers who are exposed at much higher concentrations of mixed emissions (See Chapter 6.3.3).

Also relevant in responding to this question are many experimental and epidemiological studies of non-CAFO populations exposed to low concentrations of individual chemical components of CAFO emissions, particularly hydrogen sulfide, ammonia and endotoxin. These studies document respiratory symptoms associated with low levels of these individual exposures. Because at least two of these

chemicals (hydrogen sulfide and ammonia) are found in CAFO emissions that contribute to ambient community exposures, these experimental and community exposure studies are relevant to this question (See Chapter 6.3.1). Both the Environmental Protection Agency (EPA) and the Agency for Toxic Substance and Disease Registry (ATSDR)¹ have recommended ambient exposure limits for ammonia and hydrogen sulfide based on these studies.

It is concluded that no specific disease(s) *per se* among community residents can be confirmed to arise from a specific chemical, bacteria or aromatic cause. However, the findings of the limited community studies of concentrated livestock exposures are consistent with adverse health effects observed in other experimental and epidemiological studies of some specific chemicals (ammonia and hydrogen sulfide) known to be components of CAFO air emissions. It is, therefore, also concluded that CAFO air emissions may constitute a public health hazard² and that precautions should be taken to minimize both specific chemical exposures (hydrogen sulfide and ammonia) and mixed exposures (including odor) arising from CAFOs.

Response to Question 2

Question 2: Based on an analysis of peer-reviewed, duplicated, legitimate, and published scientific research, what specific substances, including aromatic compounds, do you believe require regulatory action to protect the public?

By consensus of the entire study group, the following substances should be considered for regulatory action: (1) hydrogen sulfide; (2) ammonia; and (3) odors. The justification for regulatory action of these substances is based on our assessment of the scientific literature, (See Chapters 2.0-8.0), recommendations by pertinent federal agencies, and review of regulations established in other states (See Chapter 9.0).

Hydrogen sulfide and ammonia are recognized degradation products of animal manure and urine (See Chapter 3.4 in the full report). Both of these gases have been measured in the general vicinity of livestock operations at concentrations of potential health concern for rural residents, under prolonged exposure (See Chapter 8.0).

The World Health Organization lists hydrogen sulfide as a toxic hazard in many environments, and recommends specific exposure limits. The ATSDR lists hydrogen sulfide and ammonia on its registry of toxic substances¹ under its federal mandate to protect the public health according to the Comprehensive Environmental Response, Compensation, and Liability Act, [42 U.S.C. 9604 et seq] as amended by the Superfund Amendments and Reauthorization Act [pub. 99-499]. Furthermore, the ATSDR has published Minimum Risk Levels (MRL's) for these substances to protect the public's health.¹ The EPA historically evaluates scientific information regarding environmental contaminants and the potential threats for human health hazards. Based on a standardized risk assessment process, the EPA identifies hydrogen sulfide and ammonia as potentially hazardous substances.³ A detailed description of the process and justification used by the EPA and ATSDR to include ammonia and hydrogen sulfide as hazardous substances is provided in detail in Chapter 8.7.

¹ Agency for Toxic Substances and Disease Registry, Minimal Risk Levels for Hazardous Substances (MRL's), <http://www.atsdr.cdc.gov/mrls.html>

² hazard: the potential for radiation, a chemical or other pollutant to cause human illness or injury

³ Environmental Protection Agency, Integrated Risk Information System, www.epa.gov/iris/subst.html

Minnesota and Nebraska have established air quality standards for hydrogen sulfide based on public health concerns. California and Minnesota regulate ambient concentrations of hydrogen sulfide based upon nuisance and human health effects. Minnesota is in the process of setting standards for ammonia ambient exposures. Monitoring of ammonia ambient exposures is taking place in Missouri. The regulatory actions taken by other states in setting standards are described in Chapter 9.0.

Odors have been a major concern of residents in the vicinity of CAFOs (see Chapter 3.4, 4.0, 6.8 and 8.0). Colorado, Missouri, and North Carolina have recognized the need to promulgate odor regulations. Details of the processes of odor regulations for these states are presented in Chapter 9.0.

Response to Question 3

Question 3: Based on an analysis of peer-reviewed, duplicated, legitimate, and published scientific research, what would you recommend as Iowa or National consensus standards for any proposed substances to be regulated as emissions from CFOs?

The study group recommends that ambient air quality standards be developed to regulate the concentration of hydrogen sulfide, ammonia and odor. There has been considerable discussion on what standard levels should be established for each pollutant as well as where the measurement should take place. Some states measure concentration at the property line of the source while others measure at the residence or public use area. The U.S. EPA has determined that simultaneous exposure of two substances such as hydrogen sulfide and ammonia (both pulmonary irritants) results in an additive effect. Thus, in order to protect against the adverse effects of such binary mixtures the exposure limit for each should be reduced accordingly. While emissions from CAFOs fluctuate over time, they produce chronic rather than acute exposures. Rather than representing single doses, these exposures are recurring and may persist for days with each episode.

The study group reached consensus that measurements for hydrogen sulfide and ammonia should be taken at the CAFO property line and residence or public use area. Measurements for odor should be taken at a residence or public use area and one proposal includes measurements at the CAFO property line. The study group recommends that measurements for hydrogen sulfide and ammonia should be time weighted rather than instantaneous to allow for atmospheric variability.

With current animal production practices, stored manure must be removed and land-applied. During these times hydrogen sulfide, ammonia and odor levels at or near production facilities may be significantly higher than during normal conditions. Therefore, it is also recommended that provisions be made for allowable times to exceed the established standards to allow for proper manure application to land. Notification must be given to the Iowa DNR and nearby residents, at least 48 hours in advance when the operation expects to exceed the standards

The study group provides the following recommendations on the regulation of hydrogen sulfide, ammonia, and odor from CAFOs:

Hydrogen Sulfide

It is recommended that hydrogen sulfide, measured at the CAFO property line, not exceed 70 parts per billion (ppb) for a 1-hour time-weighted average (TWA) period. In addition, the concentration at a residence or public use area shall not exceed 15 ppb, measured in the same manner as the property line

measurement. It is recommended that each CAFO have up to seven days (with 48 hour notice) each calendar year when they are allowed to exceed the concentration for hydrogen sulfide.

Ammonia

It is recommended that ammonia, measured at the CAFO property line, not exceed 500 ppb for a 1-hour TWA period. In addition, the concentration at a residence or public use area shall not exceed 150 ppb, measured in the same manner as the property line measurement. It is recommended that each CAFO have up to seven days (with 48 hour notice) each calendar year when they are allowed to exceed the concentration for ammonia.

Odor

The study group was unable to reach consensus on the regulation of odors. Thus, the following two opinions for odor are presented:

Opinion 1:

It is recommended that odor, measured at the residence or public use area, shall not exceed 7:1 dilutions with an exceedence defined as two excessive measurements separated by 4 hours, in any day. It is recommended that each CAFO have up to seven days (with 48 hour notice) each calendar year when they are allowed to exceed the concentration for odor. At the CAFO property line, odor shall not exceed a 15:1 dilution, with an exceedence defined as one excessive two-hour time averaged sample, in any day. It is recommended that each CAFO have up to 14 days (with 48 hour notice) each calendar year when they are allowed to exceed the property line concentration for odor. Exceedence of a CAFO ambient air quality standard should result in regulatory action similar to that which would be required in regulatory action exceedence of a National Ambient Air Quality Standard. The IDNR should be granted the power to develop an implementation plan to reduce the emissions that led to the violation.

Opinion 2:

Odor recommendations are more difficult to establish because studies relating health impacts to odor exposure have not measured odor concentrations. However, odor concentrations related to annoyance impacts have been established. Measurements for odor should be taken at a residence or public use area. Using sampling events at the source, the frequency, duration, and concentration of exposure to odor at the residence can be modeled using tools currently available, thereby avoiding extensive monitoring.

Polls indicate that residents are willing to tolerate nuisance odors for only up to a reasonable amount of time (see Iowa Rural Life Poll, Chapter 7 in the full report). Thus, the reported odor concentration represents tolerable continuous exposure, above which, concentrations are tolerated only in relation to their frequency and duration. An odor concentration of 7:1 dilutions at a residence is a tolerable odor providing it is not exceeded for periods that extend beyond that considered reasonable.

Response to Question 4

Question 4: What do you think should be done to address any other emerging issues with respect to industrial CFOs in Iowa?

There are other important emerging issues surrounding the intensification of livestock production that extend beyond concerns over air emissions. These include concerns about water quality, the health of CAFO workers, socioeconomic impacts in rural communities, and the emergence of microorganisms resistant to antibiotics used in human and veterinary medicine. There are also concerns about the emission of greenhouse gases from CAFO sites. The effects of siting large CAFOs in or near communities should be recognized and used in making informed decisions on permitting facilities. There is a need to evaluate plans for controlling livestock epidemics and for proper disposal of carcasses in the event of an outbreak. Recent events in Europe associated with foot and mouth disease, plus renewed concerns over agricultural bioterrorism highlight this need. Lastly, the study group makes recommendations regarding the formation of a science advisory panel to advise the IDNR on agricultural and environmental health issues. Each of these issues is further described below.

Some issues discussed in this section may be outside the purview of the IDNR, but all are congruent with science-based conclusions in the body of the report. Some are appropriately addressed by other state or federal agencies, and some can only be addressed through a combination of related public policies.

Water Quality

Water quality is a major issue concerning CAFOs. Concerns include: 1) leakage or rupture of lagoons (both lined and unlined); and 2) runoff from agricultural fields where animal waste has been improperly applied. Nonpoint discharges may result in surface runoff with high concentrations of ammonia, biochemical oxygen demand (BOD), total and fecal coliform bacteria, total suspended solids, and phosphorus which can cause low dissolved oxygen in streams. Ecosystem impacts may include fish kills, changes in the natural food webs, algae growth, and losses of biological diversity in stream habitat. Both the structure and function of aquatic ecosystems can be impaired. Impacts may include increased cost for drinking water treatment of surface water supplies, reduced harvest of fish and shellfish, closed bathing beaches due to fecal coliforms, and loss of aesthetic beauty of Iowa's waterways.

Recently, Iowa has experienced an increase in the number of CAFOs as well as a greater density of animals per operation. Many larger operations are not self-sufficient in grain production and purchase feed from other sources. Therefore, applicators must follow additional application guidelines established by legislation and rules. While some study group members believe manure should never be applied to frozen ground or steep slopes, others recommend that manure application on steep slopes and frozen ground follow guidelines established by USDA Natural Resources Conservation Service "Iowa Nutrient Management Standard 590". In addition, large producers are required to file manure management plans with the IDNR.

Study group members reached consensus that as operations become more numerous and concentrated on limited land bases, there is an increased risk for deterioration of water quality. All members believe that if producers do not follow their manure management plans, the chance for runoff of nutrients and bacteria is increased. In addition, some members felt more strongly on this issue, stating that it is not possible to apply manure at high areal loading rates without runoff of nutrients and bacteria because

one cannot foresee intense rainfall events. One cannot assume that manure can always be safely applied to land without a potential for runoff. These members feel the present system of CAFO production disposes of too much manure in too small an area exposed to uncontrolled meteorological conditions to realistically expect acceptable water quality.

Wastes that are stored in lagoons or earthen waste storage structures have a potential for spills and/or groundwater contamination if existing standards are not met. National Pollutant Discharge Elimination System (NPDES) permits are required for large (>1000 animal units) open feedlots which allow discharge only in the event of a 25-year, 24-hour storm. Totally roofed CAFOs are not allowed to discharge into surface waters, and therefore do not require NPDES permits. This is in contrast to small Iowa towns, all of which are required to have NPDES permits and meet effluent discharge requirements.

Occupational Health

The occupational health problems for those who work inside CAFOs have been well recognized since 1977. At least 25 percent of workers in swine CAFOs have been reported to have current respiratory health problems. Recommended maximum exposure levels designed to protect worker health have been defined (See Chapter 6.3). It is apparent that current Occupational Safety and Health Administration (OSHA) limits are not protective of CAFO worker health because a number of hazardous contaminants are not regulated. Importantly, OSHA has not promulgated any Permissible Exposure Limits specifically to protect the health of livestock production workers.

There are several important regulatory problems that have interfered with the protection of workers in CAFOs. Most of the large livestock and poultry producers have not been regulated by OSHA, even though they may have more than 10 employees and are subject to OSHA regulations. The specialization of livestock production has led to increased cumulative exposure, as workers may spend as much as 70 hours per week in these buildings. There is a need to establish exposure standards that protect workers for these extended work schedules. There is enough information to protect workers' health if recognized workplace management procedures are adopted. It is recommended that the livestock-producing industries institute comprehensive worker health protection programs.

Antibiotic Resistance

Antibiotic resistance is a health threat of great concern. Recent documents from the World Health Organization (2000), the Centers for Disease Control, and other health agencies have placed a high priority on the understanding and control of antibiotic resistance (Interagency Task Force On Antimicrobial Resistance, 2000; Tenover and Hughes, 1995). It is clear that certain antibiotic use practices in human medicine have contributed to resistance. Agricultural antibiotic use practices have also been targeted as contributing to this serious problem (Witte, 1998). In particular, the subtherapeutic use of antibiotics in food producing animals has been identified by public health officials as the key factor in the development of resistance among foodborne pathogens (Gorbach, 2001).

Antibiotic resistant organisms or the resistance genes responsible can be spread from agricultural settings into human populations through a variety of mechanisms. Ingestion of contaminated food products, especially animal-derived foods including meat and dairy products, has been linked to spread of antibiotic resistant organisms (Mead et al., 1999). Direct contact between colonized or infected animals and farm workers has also been associated with the acquisition of resistant organisms in humans (Levy et al, 1976).

Various studies have demonstrated that continued use of antibiotics in feedstuffs provides conditions favorable to the selection of resistant strains of bacteria in food animals and their environment (Chee-Sanford et al., 2001; Zahn, Anhalt, & Boyd, 2001). Yet the threats for emergence of resistant strains of bacteria through subtherapeutic use of antibiotics in livestock applies wherever these practices occur; the threat is not restricted to CAFOs. Selection pressure may be enhanced by: (1) the long-term use of antibiotics in animals having endemic subclinical infections; (2) poor environmental hygiene; and (3) management practices that allow for the introduction of naïve, susceptible animals or the movement of carrier animals into a naïve herd. This latter practice allows for the continuous passage of resistant bacteria among susceptible animals. Over the past decade, increasing numbers of organisms isolated from food animals or meat products demonstrate resistance to antibiotics including penicillins, tetracycline, sulfamethoxazole, streptomycin and other compounds (Aarestrup et al., 1998; Centers for Disease Control and Prevention, 1999; Molbak et al., 1999; Smith et al., 1999; Threlfall et al., 1996; White et al., 2001).

Antibiotics are critically important in human and veterinary medicine, and in the current context, food animal production. Organisms resistant to all classes of available antimicrobial agents have been identified in human medicine and the incidence of community acquired highly drug resistant organisms is increasing (Neu, 1992). No new classes of antimicrobial agents will be available in the foreseeable future. It is critical that the appropriate state and federal agencies and the research community in the United States take a leading role in defining the risks associated with different antibiotic use practices and develop strategies to improve our antibiotic stewardship both in human and agricultural settings (American Medical Association, 2001).

Greenhouse Gas Emissions

Regarding air pollution, air permits are not required for emissions from CAFOs, so there is not a good method to quantify their inputs. However, emissions of particulate matter, sulfur compounds, and nitrogen oxides are believed to be a very minor portion of Iowa's total emissions. CAFO emissions of these pollutants are small compared to emissions from stationary sources (power plants and industry) and mobile sources (automobiles and truck diesel). Greenhouse gas emissions from CAFOs are significant for methane. On a radiative basis (greenhouse gas impacts), methane is about 10-15% of the total greenhouse gas produced in Iowa, and methane from manure management is about 25% of the total (approximately 3% of total greenhouse gas estimated in Ney et al., 1996). The Iowa Greenhouse Gas Action Plan calls for capture of methane at large feed lots (Ney et al., 1996). Nitrous oxide emissions from manure management at CAFOs is a small contribution, and the emissions of carbon dioxide from CAFOs are a negligible portion of the state's CO₂ emissions.

Community and Socioeconomic Impacts

A number of important community and socioeconomic issues have developed with the emergence of CAFOs, as described in Chapter 7. Research has explored some of these issues, and posed and evaluated alternatives, including some alternatives for livestock production. To a significant extent, these issues are tied to overall changes in agriculture and rural life in America. Importantly, these issues are complex and generally outside the purview of the IDNR.

These issues include the concern about increased concentration of control of livestock supply chains, lack of public price discovery, and loss of family farmers' control of production. Another concern is decline in local economic activity and increases in purchases of some animal production inputs from

outside the local area, as CAFOs increase in size and number. This is a complex issue since we must estimate what purchases would have been made had the structure remained the same. Of equal importance is the fact that decision-making on questions that matter at the local level are increasingly more centralized with the growth of corporate CAFOs.

Devaluation of property near hog CAFOs and related legal challenges are documented. Studies in Michigan, North Carolina, and Missouri found that the value of real estate close to CAFOs tended to fall. These and other data show that CAFOs are defined by present and potential neighbors as at least a nuisance.

Studies showing a decline in neighborliness, or community social capital, have been conducted in Iowa, North Carolina, Minnesota, and Missouri. This decline was measured by diminished opportunities to socialize, lack of trust, increased community conflict, and related variables in communities where CAFOs are concentrated.

A more diverse livestock sector that was able to remain competitive and responded to increasingly differentiated consumer preferences would likely result in greater environmental (Donham, 2000), social (Wright, et al., 2001), and economic sustainability of rural areas than one dominated by large-scale CAFOs. Policies that encourage more diverse livestock/crop farms, particularly those using sustainable production systems, could also reduce the regulatory burden of the IDNR and other agencies.

The most clearly recognizable socioeconomic issue for CAFOs that impinges on the IDNR's responsibilities is what CAFOs may do to aquatic, wildlife, and aesthetic qualities of living in Iowa, as well as tourism in Iowa. If air and water quality is compromised, the interest of persons and businesses considering relocation to Iowa will be lessened. A compromised environment could have an economic impact on tourism by keeping Iowa a low priority destination for visitors as well as driving fishing and hunting activity away from Iowa and toward less challenged environments.

Livestock Epidemic and Disposal Issues

The current state plan for Foot and Mouth Disease (FMD) in Iowa is multi-agency and is called the Foot and Mouth Disease Response and Recovery Plan. As part of its responsibilities in the state plan, the IDNR has developed the FMD Carcass Disposal Plan. Burial and composting are given high priority compared to burning, in order to reduce air pollution consequences. However, the potential impacts of a FMD epidemic like that of last year in the United Kingdom and Europe should be evaluated to assess if the current plans are sufficient for isolation of pathogens and destruction of carcasses. In addition, these plans should be evaluated for other pathogens, including bioterrorist introduction of anthrax and other potential agents of agricultural bioterrorism.

Formation of a Science Advisory Panel

To enhance the effectiveness of responses to emerging issues, the study group recommends formation of a science advisory panel to contract with the IDNR on agricultural and environmental issues. The University of Iowa and Iowa State University participants have found the current review of scientific literature on CAFOs and the ensuing discussions to be very useful. University faculty could continue in a more general role as a scientific advisory panel. This would provide the opportunity to develop closer collaboration and planning in a prospective manner. The partnership of the IDNR and other appropriate state agencies with a continuing advisory group of specialists in the sciences germane to

agricultural, environmental, and public health issues would strengthen Iowa's ability to plan for prevention or remediation of emerging problems in a thoughtful and positive manner with sufficient lead-time to engage the needed resources and evaluation. A science advisory panel could suggest areas for needed research to better resolve or control the factors related to emerging issues. The panel could recommend consultants, establish standard operating procedures for resolving questions, and be prepared with the necessary background, literature resources and ongoing discussion to support science-based advice as needed by the IDNR or other agencies in Iowa.

Response to Question 5

Question 5: Finally, I am seeking your recommendations regarding available methods of reducing or minimizing the emissions from CFOs and the impact of those emissions on the ambient air surrounding sites.

Emissions from CAFOs originate from three primary sources: (1) air emissions from housing units; (2) air emissions from manure storage facilities, and (3) air emissions during and following land application events. Documented emission reduction strategies exist for all three of these sources. Some of the documented strategies are more effective than others and some are more economical than others, however, economical strategies exist for dealing with emissions from all three sources.

Housing Unit Air Emissions

Housing unit air emissions ultimately are carried out with the ventilation air exhausted from buildings. Emissions originate from the feeding floor itself, where deposited manure and urine decompose anaerobically resulting in airborne gases and particulates from dried fecal material. In addition, emissions originate from under-floor manure storage in slatted systems and from bedding pack in deep-bedded systems. Studies have shown that, in slatted-floor housing systems, the emission contribution from the feeding floor itself can exceed 60 percent of the total with the remaining contribution from the under-floor storage compartment. Use of smooth cleanable surfaces along with frequent and complete scraping, and/or frequent flushing of the feeding floor with minimal air exchange between the housing air and the under-floor slurry, is a good strategy for reducing housing unit emissions.

If housing unit emissions are post-processed, (i.e., exhaust ventilation air is treated), additional strategies exist. Scrubbing the ventilation air with biofilters, where the exhausted air is passed through a bed of gas-scrubbing microorganisms, has been shown to reduce ammonia and odor emissions by more than 90 percent. However, effective use of biofilter technology requires simultaneous use of power ventilation. Biofilters are difficult to implement under high ventilation rate situations typical of Iowa summers and, of course, are not useful in naturally ventilated housing systems.

Gases and odors adhere to dust particles. Natural biomass filters such as corn stalks and chopped-straw have been used to capture a portion of the larger dust particles emitted with ventilation air. The evidence on this strategy is still being documented but research to date indicates that about 60 percent of the odor can be reduced using this technique.

Tree barriers are being evaluated for effectiveness in reducing odor and particulates and enhancing mixing and dilution. However, the impact on a large scale relative to livestock or poultry production sites is unknown. Tree barriers surrounding production sites have high aesthetic value.

Storage Unit Air Emissions

Outside manure storage systems can be a source of additional gas emissions. Regardless of whether the storage system is formed concrete, steel-lined, or earthen basin, these open exposures to the atmosphere can result in high emission rates. Emission rates are highly influenced by weather conditions. The most effective and economically feasible strategy for reducing emissions from outside storage units (not including anaerobic lagoons) is accomplished by covering the entire surface area of the storage unit. Research has been conducted on many covering materials, ranging from expensive impermeable covers, to relatively inexpensive chopped-straw covers with a maintained minimum depth of coverage. Inexpensive, chopped-straw cover, with a maintained minimum depth is as effective in reducing emissions as the more expensive covers. However, the key to success with this strategy is maintenance of a minimum depth of straw.

The best method for minimizing odors from anaerobic lagoons is to simply practice good management. It is most important to use adequate dilution water and load at or below design capacity. There has been much discussion recently about the use of anaerobic digesters which can significantly reduce storage odors and generate energy in the form of methane gas.

Air Emissions from Land Applied Manure

Emissions during land application of livestock and poultry manure can be intense if the manure is surface-applied. The majority of total emissions, roughly 80 percent, occur during the first six hours after land application. To significantly reduce emissions of gases and odors during land application, injection or immediate coverage (within 1 hour) is required. Odor reduction is, in turn, dependent upon the degree of soil coverage. Poorly injected manure slurry with little soil coverage is only marginal in effectiveness in reducing gas and odor emissions. To take full benefit of the natural odor absorption capacity of soils, the slurry must be completely covered. The evidence is clear that 85-90 percent emission reduction is possible with complete soil coverage compared to surface application when coverage is delayed for more than 3-6 hours.

Policy Strategies for Long-Term Viability of the Livestock Industry in Iowa

Emission of gases and particulates from livestock and poultry systems is an inevitable outcome requiring special attention. Strategies for emission reduction for all stages of production have been outlined, with most being economically feasible. The strategies outlined previously are documented techniques that have gained fairly widespread acceptance with scientists and engineers working in this area.

A few strategies have been discussed for years. They lack the scientific evidence to document their specific benefits, but nevertheless deserve discussion. The study group is unanimous in the belief that a long-term strategy of better facility siting, setbacks, and landscape considerations, in addition to the implementation of available odor and gas reducing technologies, will benefit both the producer and residents in the community. The study group strongly urges that the following topics receive careful consideration.

Statewide Spatial Planning

Facilities built today, under current siting and setback practices, have a lifetime of roughly 15 years. In the long-term, guidelines should be established based on siting and spatial planning considerations that require siting of new and replaced facilities in accordance with a statewide spatial plan. Some areas of the state are currently over-populated with facilities. A statewide spatial plan, based for example on

animal units per acre, would help guide and distribute animals in a manner that takes full advantage of Iowa's soil/nutrient capabilities and minimizes the impacts of air emissions on the community.

Local Siting Guidelines

The study group feels strongly that current siting guidelines are outdated and not reflective of the changing demographics in rural Iowa. Current siting guidelines use a simple distance and size regulation for new facilities. The study group feels that this method of siting is not conducive to the long-term viability of the livestock and poultry industries in Iowa. A strategy that takes into account proposed facility size and type, distance and orientation to surrounding neighbors, local weather patterns, odor control measures, existing recreational and public-use facilities, and other existing production facilities in a community would provide better placement guidance of facilities and contribute positively to spatial planning considerations. Siting models that utilize the above mentioned inputs have been developed, are currently being calibrated, and should be used in community-wide applications.

Aesthetic Considerations for Livestock and Poultry Production Sites

Evidence exists in the literature that foliage (primarily trees) will enhance mixing and capture some of the odor-producing gases and particulates emitted from livestock and poultry production facilities. Currently, research projects are being planned, and some have already been conducted, to test the use of strategically placed tree barriers around production sites. Although evidence documenting odor, gas, and particulate-capture-percentages on a production-size scale is limited, the study group feels strongly that landscape changes such as strategically placed tree lines will positively impact producer/community relationships. This is a researchable area and one that holds promise as a natural, aesthetically pleasing strategy for producers to implement.

Conclusion to Executive Summary

The consensus responses summarized in this Executive Summary provide a science-based summary of this inquiry from the Iowa Department of Natural Resources. The study group recognizes the importance of livestock production and the vital role it plays in the livelihoods of Iowa producers and suppliers and the state's economy. It is, therefore, critically important that science-based policies be developed to sustain livestock production. It is equally vital that such policies protect the public's health, sustain and enhance the communities in which livestock production takes place, and protect and enhance the environment and Iowa's natural resources through sound production practices, environmental controls and the development of a long-range, sustainable, community health and environmentally conscious spatial plan for CAFOS.

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Appendix 2 -- EPA Guidance on Emergency Planning and Community Right-to-Know-Act



Office of Land
and
Emergency Management

October 25, 2017
www.epa.gov/epcra

Does EPA interpret EPCRA Section 304 to require farms to report releases from animal waste?

EPA interprets the statute to exclude farms that use substances in "routine agricultural operations" from reporting under EPCRA section 304.

As written, EPCRA section 304 requires all facilities "at which a hazardous chemical is produced, used or stored" to report releases of reportable quantities of any EPCRA Extremely Hazardous Substance and of any CERCLA hazardous substance. Congress, however, created an exception relevant to farms. As indicated above, EPCRA reporting turns on whether a facility produces, uses, or stores a hazardous chemical. The term "hazardous chemical," as defined in EPCRA sections 329(5) and 311(e), does not include "any substance to the extent it is used in routine agricultural operations."

Therefore, if a farm only uses substances in "routine agricultural operations", the farm would not be a facility that produces, uses or stores "hazardous chemicals," and would therefore not be within the universe of facilities which are subject to EPCRA section 304 release reporting. Because such farms fall outside of EPCRA section 304, they are not required to report any releases of EPCRA extremely hazardous substances or CERCLA hazardous substances, including any releases from animals or animal waste.

Based on the language of the statute described above, EPA believes Congress did not intend to impose EPCRA reporting requirements on farms engaged in routine agricultural operations. The statute does not define "routine agricultural operations," and EPA has previously identified examples of routine agricultural operations. Those examples were not intended to be exhaustive. EPA clarifies here that it interprets the term "routine agricultural operations" to encompass regular and routine operations at farms, animal feeding operations, nurseries, other horticultural operations and aquaculture.

Additionally, as stated in previous policy interpretations, the following are examples of substances used in routine agricultural operations:

- Paint used for maintaining farm equipment;
- Fuel used at the farm to operate machinery or to heat buildings in a farm for housing animals; and
- Chemicals used for growing and breeding fish and aquatic plants in an aquacultural operation.

These examples were not intended to be exhaustive. EPA interprets the statute to include other substances used in routine agricultural operations, including animal waste stored on a farm and animal waste that is used as fertilizer. EPA also notes that use of a substance in routine agricultural operations includes the storage of that substance necessitated by such use. To illustrate based on one of the examples cited above, an inherent part of using fuel to operate machinery is storage of that fuel.

EPA clarifies here that, just as an aquacultural operation involving the feeding and breeding of fish would be considered a routine agricultural operation, the feeding and breeding of animals, as well as the expected handling and storage of the animals' waste, would also be considered a routine agricultural operation. EPA thus interprets the phrase "used in routine agricultural operations" to include, for example, the handling and storage of waste for potential use as fertilizer. In creating the routine agricultural operation exception, Congress demonstrated its intent to treat farms differently than other types of facilities. EPA does not believe Congress intended the generation, handling or storage of animal waste to subject farms to reporting if they do not otherwise produce, use or store hazardous chemicals.

Under EPA's interpretation, a farm where substances are used only in routine agricultural operations is not within the scope of EPCRA section 304; however, farms are still required to report releases of CERCLA hazardous substances under CERCLA 103 (see EPA's implementing regulations at 40 CFR part 302 and the continuous release reporting form).

Note: EPA intends to conduct a rulemaking on the interpretation of "used in routine agricultural operations" as it pertains to EPCRA reporting requirements.

Office of Emergency Management

Senate Committee on Environment and Public Works
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
Hearing entitled, "Legislative Hearing on S. 2421, the Fair Agricultural Reporting Method Act."
March 8, 2018
Questions for the Record for Mark Kuhn
Responses

Senator Ernst:

1. Honorable Senator Joni Ernst:

Confined Animal Feeding Operations (CAFO's) need to compile and report dangerous air emissions to protect the health of neighbors living nearby. My testimony on March 8, 2018 explained how emissions of hydrogen sulfide and ammonia have impacted the health of the Jeff and Gail Schwartzkopf family and diminished their quality of life.

Even if the EPA hasn't yet initiated a response to the National Response Center (NRC), that's likely due to its own failure to complete the NAEMS Emissions Estimating Methodologies and the resulting lack of information about where such a response is needed and a lack of regulation under the Clean Air Act, not to a lack of need. There have been other emergency responses to such emissions by other agencies, so EPA's inaction says more about the EPA than the risks from this pollution.

Other federal agencies have access to NRC data, have authority to act, and have responded to releases from CAFO's when the EPA hasn't. For example, ATSDR has responded, and is currently investigating emissions from Hickman Egg Farms in Arizona. The Center for Progressive reform wrote about it in a recent blog:

<http://progressivereform.org/CPRBlog.cfm?idBlog=12D56AOB-935E-9407-184D2C95643E5CDO>

"Just this past month, after years of community advocacy had gone nowhere, the Agency for Toxic Substances and Disease Registry (ATSDR) began working with the local community to investigate air quality near Hickman's facilities. ATSDR, a federal agency under the Centers for Disease Control and Prevention (CDC), is authorized under CERCLA and performs several vital functions to address public health effects of hazardous substance releases into the environment. ATSDR is able to provide this assistance because, as noted above, ammonia and hydrogen sulfide, common emissions from CAFO's, are listed as hazardous substances under CERCLA."

Purportedly the exemption bill (passed after the hearing, as part of the omnibus spending bill) maintained reporting of the same emissions under one provision of EPCRA, so CAFO operators are already still required to compile and report the emissions information, and CERCLA reporting doesn't add anything but an email to the NRC to the reporting they still have to do.

And finally, neighbors like the Schwartzkopf's get so little information about what they are being exposed to, any mechanism that gets basic information out into the public could help neighbors and communities cope with the exposures they face.

This is especially true as a result of legislation signed into law by Iowa Governor Terry Branstad in 2017. The new law limits damages that can be awarded to a person who wins a lawsuit against an animal feeding operation. By requiring "objectively documented medical evidence and proven to be caused by the facility," neighbors like the Schwartzkopf's will have little recourse in the courts and no place to turn.

In Iowa, it takes a good neighbor to be a good neighbor, CAFO operators included. Being a good neighbor carries with it the responsibility to compile and report dangerous air emissions.

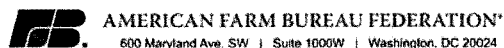
Senator ROUNDS. Thank you, Mr. Kuhn, for your testimony today.

At this time, each of the Senators will have 5 minutes to ask questions of our witnesses. I will begin.

Before I actually start with questions, I would like to ask unanimous consent to include two letters of support for this legislation and ask they be entered into the record of this meeting, a letter from the American Farm Bureau and a letter from the Wyoming Stock Growers Association.

Hearing none, we will enter it.

[The referenced information follows:]



ph. 202.406.3600
f. 202.406.3606
www.fb.org

February 26, 2018

The Honorable John Barrasso
United States Senate
Washington, DC 20510

Dear Senator Barrasso:

The American Farm Bureau Federation, the country's largest general farm organization with approximately 6 million family members and representing nearly every type of crop and livestock production across all 50 states and Puerto Rico, applauds your leadership in cosponsoring S. 2421, the Fair Agricultural Reporting Method Act (FARM Act).

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was enacted to provide emergency response to, and ensure cleanup of, major industrial toxic spills, like oil spills and chemical tank explosions, and provide for the cleanup of toxic waste sites. CERCLA has two primary purposes: to give the federal government necessary tools for prompt response to hazardous waste disposal and to hold polluters financially responsible for cleanup. CERCLA, also known as the "Superfund" law, includes reporting requirements connected to the relevant events. As S. 2421 clarifies, Congress did not intend for emergency air emission reporting to apply to day-to-day practices on agricultural operations, recognizing that low-level, continuous emissions of ammonia and hydrogen sulfide from livestock are a part of everyday life.

In 2008, the EPA finalized a rule to exempt all agricultural operations from CERCLA reporting and small operations from EPCRA reporting requirements, recognizing that low-level, continuous emissions of ammonia and hydrogen sulfide from livestock are not "releases" that Congress intended to regulate. When the rule was challenged in 2009, the Obama administration spent eight years defending this Bush-era regulation. In defending the lawsuit, the Obama EPA argued that CERCLA and EPCRA language does not explicitly exempt farms because Congress never believed that the continuous emissions of agricultural operations would fall into the realm of regulation.


Unfortunately, in April 2017, the United States Court of Appeals for the District of Columbia vacated the EPA's 2008 exemption, putting nearly 200,000 farms under the regulatory reporting authorities enshrined in CERCLA. Not only does this decision have the potential to bring nearly 200,000 farms and ranches under federal regulatory authority, but it also will put our nation's environmental and public health at risk. Currently, Hazardous Substance release reports are taken by the National Response Center (NRC), run by the Coast Guard. This department has averaged 28,351 reports per year over the last eight years. When farms from across the nation must suddenly report their low-level emissions, these reports from over 200,000 agricultural operations will inundate the NRC. This increase of over four times the average annual amount, in the weeks after the court's decision goes into effect, could prevent the Coast Guard from responding to actual hazardous waste emergencies, entirely defeating the primary purposes of CERCLA.

The Court has stayed its April 2017 decision multiple times, with the latest stay slated to expire on May 1, 2018. It is imperative that Congress takes action before May 1 to ensure that the EPA is not required to implement this overly burdensome court decision and open up hundreds of thousands of farms and ranches to activist lawsuits, while potentially creating a database of sensitive private farmer information.

Farmers and ranchers are looking to Congress to act swiftly to protect their privacy and their businesses from the financial strain and burden of these unnecessary requirements to report ordinary activities on their land. The FARM Act does this by codifying EPA's 2008 CERCLA exemption for continuous, low-level livestock emissions.

Farm Bureau appreciates and supports your effort, and will encourage other members of Congress to support S. 2421.

Sincerely,

A handwritten signature in black ink, appearing to read "Zippy Duvall", written in a cursive style.

Zippy Duvall
President



WYOMING STOCK GROWERS ASSOCIATION

Guardian of Wyoming's Cow Country since 1872

President- Dennis Sun, *Casper*

Region I Vice President- JD Hill, *Ranchester*

Region III Vice President- Mantha Philips, *Casper*

Region V Vice President- Reg Philips, *Dubois*

First Vice President- Scott Sims, *McFadden*

Region II Vice President- Steve Paisley, *Wheatland*

Region IV Vice President- Brad Mead, *Jackson*

Executive Vice President- Jim Magagna, *Cheyenne*

Young Producers Assembly- Kendall Roberts, *Cheyenne*

February 12, 2018

Senator John Barrasso

Chairman

Environment & Public Works

Committee

Senator Tom Carper

Ranking Member

Environment & Public Works

Committee

Senator Mike Rounds

Chairman

Superfund, Waste Mgmt.,

Reg. Oversight Committee

Dear Senators Barrasso, Carper and Rounds:

The Wyoming Stock Growers Association (WSGA) represents livestock producer across the state. The vast majority of our members would be seriously impacted by the application of CERCLA to animal waste from agricultural operations as mandated by the 2017 decision of the DC Circuit Court of Appeals. While we appreciate the efforts of the EPA in securing extensions of the time for compliance from the Court, permanent resolution of this clearly unintended application of this law rests with Congress.

Wyoming has the largest average ranch size in acreage of any state. The vast majority of our members operations involve more than the 208 head threshold of cattle identified by some as the trigger for required reporting. Wyoming has very few confined feeding operations. Most of our ranching operations involve cattle on open ranges, often spread over thousands of acres for most of the year. Even during that season when cattle are fed hay, the hay is typically scattered over a relatively large area.

There is currently no credible science or practical methodology for measure the release of hazardous substances from livestock dispersed in this manner. Furthermore, the amount of ammonia or hydrogen sulfide released by an animal, if any, will be influenced the type of feed being consumed and the movement patterns of the animal.

The application of CERCLA to ranching operations is clearly an example of the Court applying the law in a manner that was never intended by Congress or by the responsible federal agency. We commend you for holding this hearing and look forward to timely action by Congress to address this misapplication of the law.

Sincerely,

Jim Magagna

Executive Vice President

"Shaping and Living The Code of The West"

P.O. BOX 206, CHEYENNE, WY 82003 • PH: 307.638.3942 • FX: 307.634.1210

EMAIL: INFO@WYSGA.ORG • WEBSITE: WWW.WYSGA.ORG • BLOG: WWW.REALRANCHERS.COM

Senator ROUNDS. With that—first of all, Mr. Mortenson, if I could just begin with you. I am familiar with where your ranch is, and I know it is on the Cheyenne River, and it overlooks the Oahe Dam and Reservoir. It is one of the most beautiful lakes in all of America, in my opinion; it is 180 miles long, 5, 6 miles wide in some areas, and you can go out and look down 10 foot and see the bottom. It is a couple hundred feet deep in a lot of areas, but it is absolutely beautiful, and the water is clear.

America's ranchers, just as you, are on the front line of the nation's conservation efforts. Ranchers like yourself are truly our best stewards of the land. Can you talk about what you do to protect the environment and South Dakota's natural resources and maybe also, on a brief basis, why you do it?

Mr. MORTENSON. I will start with the last question, why you do it. It is the right thing to do because we all have to breathe the same air and drink the water. Like you said, we are on Lake Oahe, we are on the Cheyenne River arm of Lake Oahe, so what runs off my ranch basically goes all the way to New Orleans, so I am very cognizant of what that is and make sure that I am doing the best that I can to stop any pollution.

Now, as Senator Rounds indicated earlier, SDSU, the college in Brookings, has done research on the ranch, quite extensively, and one of the research projects they had had to do with water quality, and what they found out is that the water running off our ranch is cleaner than the water that runs onto it from the neighboring farms and ranches. So we are very proud of that fact, that we are doing the right thing environmentally to clean up not only the water, but the air.

We practice what we call holistic management, and that means we take into account everything on the ranch, from the people to the land to the wildlife, and all of those things are interconnected, and if any of them aren't healthy, the whole system will fail. So we make sure that everything has a chance to thrive on the ranch, regardless of whether it is livestock or the trees, the shrubs, anything like that. We are very conscientious about the environment we live in.

Senator ROUNDS. You are a volunteer fireman, as well. Can you comment a little bit about what it would do with regard to first responders if we actually had to try to get the Corps of Engineers to respond? I am not even sure where the nearest Corps of Engineers office is and how many hundreds of miles away it is from our part of the world, but can you comment a little bit about what the impact would be if your local emergency responders had to respond to the call each time one of these reports was to be filed?

Mr. MORTENSON. Certainly. Not only am I a volunteer fireman, but I am also a first responder, EMS first responder, and it adds another layer, basically, of paperwork that you would have to do and potentially could slow down your response time. I am going to a Superfund site out in the middle of Stanley County somewhere; now I have to worry about, is it for real, or is it a chemical that I am worried about, or is it a cow pie that I might step in and slip and fall.

Those are very real concerns because, as a first responder, your first duty is to make sure that the scene is safe. So you can't enter

a scene until you have determined that, and this will just slow down that response time.

Senator ROUNDS. Sometimes I think, when we get into these meetings here in DC, we start talking about manure, and we start talking about it as this thing which has little value. Can you talk about the value of manure as we see it, in terms of the ag operations and the value that we have with regard to manure?

Mr. MORTENSON. Absolutely. In my operation, it is a pasture based operation, obviously, and there is a little bug that we monitor, it is called the dung beetle. And that dung beetle, when that pat hits the ground, those things come from all over the place. They have little antenna that they sense the smell and they zoom in on those cow pats. They make little balls, lay their eggs in these little manure balls, and then roll them into a hole. They roll them away from the cow pat, dig a hole, and down into it it goes.

When the eggs hatch, the larvae feed on the manure, and then when they are big enough, they come out. What does that do? Several things: it fertilizes the ground, No. 1, and No. 2, it aerates the ground, it opens the ground up so the water percolates into the ground a lot easier. So the cow pat is very important to the overall health of our range land.

Senator ROUNDS. Do you know any producers out there right now that actually don't value manure in their operations?

Mr. MORTENSON. None. I mean, with the cost of commercial fertilizer, this is, by far and away, the cheapest and the best product that is out there. And like I say, for me, Mother Nature is doing the work; she is the one that is putting the fertilizer into the ground.

Senator ROUNDS. Mr. Mortenson, thank you.

Senator Booker.

Senator BOOKER. Mr. Chairman, if it is OK with you, I am going to defer to my Ranking Member and my colleague. Before I do, I just want to ask unanimous consent to submit into the record materials from the Congressional Research Service analyzing the effects of S. 2421, the FARM Act.

Senator ROUNDS. Without objection.

Senator BOOKER. Thank you.

[The referenced information follows:]



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MEMORANDUM

March 7, 2018

To: Senate Committee on Environment and Public Works
Attention: Kusai Merchant

From: David M. Bearden, Specialist in Environmental Policy, dbearden@crs.loc.gov, 7-2390

Subject: Fair Agricultural Reporting Method Act/FARM Act (S. 2421)

This memorandum responds to your request for an analysis of the potential effects of amendments to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) proposed in the Fair Agricultural Reporting Method Act or “FARM Act” (S. 2421), as introduced in the 115th Congress on February 13, 2018. The bill would exempt air releases of hazardous substances emitted by animal waste at farms from requirements under CERCLA to notify the National Response Center. These amendments also would have a bearing on the applicability of requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA) to notify state and local officials of such releases. However, EPCRA may continue to apply to the reporting of releases of separately listed extremely hazardous substances that are not contingent upon reporting under CERCLA, unless these releases may be covered by an exemption under EPCRA in current law for substances used in routine agricultural operations.

Overview

Whether the reporting requirements of CERCLA and EPCRA should be applied to air releases of hazardous substances from animal waste has been a long-standing issue addressed in multiple hearings and legislation in Congress. The purpose of reporting releases under these statutes is to inform federal, state, and local emergency response officials if a response action were warranted to protect human health and the environment. Some have observed though that reporting may impose a compliance burden without a commensurate need if the relative risks of air releases would not warrant a response action in most instances. Although others may still value the information gained from reporting to evaluate sources of air emissions for regulatory planning or other purposes, such utility would be incidental to the response objectives of CERCLA and EPCRA. Potential disclosure of release reports to the public also has been an issue, but certain protections are available in current law for sensitive and confidential information.

During the George W. Bush Administration, the U.S. Environmental Protection Agency (EPA) finalized a rule in 2008 to exempt air releases of hazardous substances emitted by animal waste at most farms from reporting under CERCLA and EPCRA, because of its expectation that the relative risks would make a response action unlikely or impractical in most cases. EPA did apply EPCRA to require reporting from large concentrated animal feeding operations (CAFOs) based on the number and type of livestock, in response to some public comments expressing desire for the information. Litigation challenging EPA’s authority to create this administrative exemption led to a U.S. Court of Appeals for the D.C. Circuit decision in April 2017 (*Waterkeeper Alliance, et al., v. EPA*) that vacated the 2008 rule. In response to

petitions from EPA during the Trump Administration, the court subsequently stayed (i.e., delayed) the issuance of an order to lift the exemption in the 2008 rule until May 1, 2018.

EPA has released guidance that instructs farms to notify the National Response Center under CERCLA once the court issues its order, if air releases of hazardous substances emitted by animal waste are equal to or exceed reportable quantities.¹ The EPA guidance indicates that farms should not report releases to state and local officials under EPCRA though, based on the Trump Administration's interpretation that air releases from animal waste would be covered under the exemption for substances used in routine agricultural operations. The U.S. Court of Appeals April 2017 decision did not refer to this exemption.

If enacted into law, S. 2421 would amend CERCLA to provide an exemption from the reporting of air releases of hazardous substances emitted by animal waste at farms. In turn, this amendment would have the effect of exempting such releases of hazardous substances from reporting under EPCRA that is contingent upon reporting required under CERCLA. However, the potential applicability of EPCRA to air releases of separately listed extremely hazardous substances may depend on whether the Trump Administration's interpretation of the exemption for substances used in routine agricultural operations is challenged. Any potential reporting requirements under state or local laws may continue to apply though, as neither CERCLA nor EPCRA would preempt such requirements.

The following sections of this memorandum discuss the purposes of CERCLA and EPCRA in current law, the types of hazardous substances and extremely hazardous substances that may be released from animal waste at farms, the George W. Bush Administration 2008 rule, the D.C. Circuit April 2017 decision that vacated this rule, the Trump Administration's guidance issued in response to the reversal of the rule, and how the amendments to CERCLA proposed in S. 2421 may affect reporting requirements. I hope that this information is helpful to the Committee. I remain available if the Committee needs further assistance from CRS in consideration of S. 2421 and related issues.

CERCLA

Enacted in 1980, CERCLA authorized the Superfund program administered by EPA to remediate environmental contamination from releases of hazardous substances at sites elevated for priority federal attention in coordination with the states, and established the financial liability of "potentially responsible parties" (PRPs) associated with a release.² Congress has amended CERCLA in multiple laws over time to clarify the applicability of the statute to federal facilities, and to modify various response, liability, and enforcement provisions to address issues that arose during the course of implementation.³ Although risks posed by abandoned hazardous waste sites were a central topic in the debate of legislation that led to the enactment of CERCLA, the final bill that Congress enacted included language more broadly addressing past or present releases of hazardous substances across environmental media and industrial, commercial, and governmental sectors.⁴

¹ For a summary of this guidance, see EPA, Office of Land and Emergency Management, *CERCLA and EPCRA Reporting Requirements for Air Releases of Hazardous Substances from Animal Waste at Farms*, 520-F-18-001, February 2018, available at: <https://www.epa.gov/epcra/fact-sheet-cercla-and-epcra-reporting-requirements-air-releases-hazardous-substances-animal>.

² 42 U.S.C. §§9601-9675.

³ For a broader discussion of the scope and purposes of CERCLA than presented in this memorandum, see CRS Report R41039, *Comprehensive Environmental Response, Compensation, and Liability Act: A Summary of Superfund Cleanup Authorities and Related Provisions of the Act*, by David M. Bearden.

⁴ See U.S. Congress, Senate Committee on Environment and Public Works, *A Legislative History of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund)*, Public Law 96-510, committee print, prepared by Congressional Research Service, 97th Cong., 2nd sess., 1983, S. Serial No. 97-14 (Washington: GPO, 1983).

Applicability to Releases

CERCLA generally applies to the release, or the substantial threat of a release, of a hazardous substance into the environment within the United States or under the jurisdiction of the United States. The geophysical scope of the environment covered under CERCLA encompasses multiple media. The term “environment” is defined in Section 101(8) to include surface water, groundwater, a drinking water supply, surface soils, sub-surface soils, or ambient air.⁵ As defined in Section 101(22), the term “release” also is relatively broad in terms of the manner in which a hazardous substance may enter the environment, including spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.⁶

Section 101(14) of CERCLA references specific categories of chemicals designated under other laws as hazardous substances subject to CERCLA.⁷ Section 102 authorizes EPA to designate additional hazardous substances that may present substantial danger to public health or welfare, or the environment, if a release were to occur.⁸ Section 102 also authorizes EPA to establish a quantitative threshold for each hazardous substance to determine when a release must be reported to the federal government.⁹ Section 103 requires the person responsible for a release to notify the National Response Center, if the release is equal to or exceeds the reportable quantity during a 24-hour period.¹⁰ Section 103(f) authorizes an exception to offer compliance flexibility for a continuous release that is “stable in quantity and rate,” in which case notice may be provided to the National Response Center on an annual basis as an alternative to daily notification.¹¹ However, Section 103(f) requires intervening updates during the year to report a “statistically significant increase” in the quantity of a release above that previously reported or occurring.

Reporting requirements under CERCLA provide a mechanism through which the federal government may become aware of a release to determine whether a response action may be warranted to fulfill the objective of the statute to protect human health and the environment.¹² Whether a response action is warranted generally would depend on the potential risks of exposure at the site where the release occurs. Reportable quantities merely serve as thresholds to determine the quantity of a release that is subject to notification, but do not necessarily indicate a particular level of risk. As for any chemical, the potential risks of a release would depend on the concentration, duration, and frequency of exposure (i.e., the dose), the conditions of exposure, and individual characteristics of the exposed individual.¹³

Once a release is reported, Section 103(a) requires the National Response Center to notify EPA and other appropriate federal agencies, and the state in which the release occurs.¹⁴ If warranted, Section 104 authorizes federal actions to respond to the release in coordination with the state, including enforcement of liability.¹⁵ The federal response authorities of CERCLA are Presidential authorities delegated to EPA

⁵ 42 U.S.C. §9601(8).

⁶ 42 U.S.C. §9601(22).

⁷ 42 U.S.C. §9601(14).

⁸ 42 U.S.C. §9602.

⁹ Designated hazardous substances and reportable quantities are codified in federal regulation at 40 C.F.R. Part 302.

¹⁰ 42 U.S.C. §9603. The U.S. Coast Guard administers the National Response Center.

¹¹ 42 U.S.C. §9603(f). Procedures for filing continuous release reports are codified in federal regulation at 40 C.F.R. §302.8.

¹² Releases reported under CERCLA also generate data that some may desire to evaluate sources of pollution for regulatory planning or other purposes, although this utility would be incidental to the statutory objective of CERCLA.

¹³ For information on risk assessment, see National Academy of Sciences, National Research Council, *Science and Decisions: Advancing Risk Assessment*, 2009, available at: <http://www.nap.edu/catalog/12209/science-and-decisions-advancing-risk-assessment>. This report updates the previous National Research Council risk assessment guidelines issued in 1983.

¹⁴ 42 U.S.C. §9603(a).

¹⁵ 42 U.S.C. §9604.

and other federal agencies on the National Response Team.¹⁶ The procedures for taking response actions under CERCLA are outlined in the National Oil and Hazardous Substances Pollution Contingency Plan.¹⁷

Section 107 of CERCLA establishes the categories of PRPs who may be held liable for response costs, natural resource damages, and the costs of federal studies of potential health hazards that may be associated with a release.¹⁸ Federal response actions are subject to annual appropriations but may be recovered from the liable parties. PRPs generally may include current and past site owners and operators, persons who arranged for the treatment, disposal, or transport of a hazardous substance, and transporters who selected a site for disposal.

Section 104 also authorizes federal actions to respond to releases of other pollutants or contaminants that are not designated as hazardous substances, if the release would present an imminent and substantial danger to public health or welfare. However, CERCLA does not establish liability for such releases, nor does the statute require the reporting of such releases.

Statutory Exemptions

Although CERCLA is relatively broad in its applicability to releases of hazardous substances, Congress has excluded certain types of substances or releases from the statutory definitions in Section 101 that it did not intend to be subject to the statute. Section 107(b) of CERCLA also provides defenses to liability for certain conditions beyond a party's control such as an act of God, act of war, or an act or omission of a third party.¹⁹ In the 1980 enactment and subsequent amendments, Congress also has exempted specific categories of parties, circumstances, or uses that it did not intend to be subject to liability or reporting requirements, but for which federal authority remains available to respond to a release if warranted to protect human health and the environment.

Some of these exclusions or exemptions are based on practical considerations, whereas others are intended to avoid duplication or overlap with other laws that apply to the same releases. Among the exclusions or exemptions more directly relevant to the agricultural sector, Congress excluded the "normal application of fertilizer" from the definition of the term "release" in Section 101(22) of CERCLA, making such use not subject to the statute in its entirety. Congress also excluded hazardous substances that may be released as a result of the proper application of a pesticide from liability under the statute in Section 107(i),²⁰ and reporting requirements in Section 103(e).²¹ The availability of the pesticide exemption is dependent upon proper application of the pesticide in accordance with federal registration requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).²² Congress included both the fertilizer exclusion and the pesticide exemption in the 1980 enactment. Congress has not since amended CERCLA to exempt the agricultural sector more broadly.

EPCRA

Once CERCLA required the reporting of releases of hazardous substances to the federal government, questions arose as to whether federal law also should require reporting of the same information directly to

¹⁶ Executive Order 12580, *Superfund Implementation*, January 23, 1987.

¹⁷ 40 C.F.R. Part 300.

¹⁸ 42 U.S.C. §9607.

¹⁹ 42 U.S.C. §9607(b).

²⁰ 42 U.S.C. §9607(i).

²¹ 42 U.S.C. §9603(e).

²² 7 U.S.C. §§136-136y. Demonstration of the proper application of a federally registered pesticide generally would be subject to documentation of its use.

state and local governments to help facilitate their emergency response capabilities.²³ This question was among the prominent topics in the debate of the 1986 amendments to CERCLA. Although some state and local laws at that time addressed releases of hazardous substances, response authorities and capabilities varied among jurisdictions. Congress developed uniform federal requirements for the reporting of releases to state and local governments in EPCRA under Title III of the Superfund Amendments and Reauthorization Act of 1986 (P.L. 99-499). Title III enacted EPCRA as a separate law, and not as an amendment CERCLA.²⁴

EPCRA addresses emergency notification of releases at the state and local level to complement the reporting of releases to the federal government under CERCLA. Similar in objective to CERCLA, release notification under EPCRA provides a mechanism for state and local governments to determine whether a response action may be warranted under their own respective authorities, or in coordination with a federal response. Reporting under EPCRA also provides an earlier opportunity for state and local governments to become aware of a release instead of relying upon subsequent notification from the National Response Center once a release is reported to the federal government. However, EPCRA does not authorize federal, actions to respond to a release, nor does the statute establish liability for releases. Federal response authorities and liability for releases are rooted in CERCLA.

EPCRA also requires notification at the state and local level for emergency planning purposes if a facility stores extremely hazardous substances or other hazardous chemicals in excess of certain amounts.²⁵ These notification requirements are intended to enhance state and local emergency preparedness in the event of an actual release. Other provisions of EPCRA also require the reporting of toxic chemicals used at a facility in excess of certain amounts to EPA for public disclosure in the federal Toxic Release Inventory (TRI).²⁶ These emergency planning and TRI disclosure requirements apply to the presence or use of chemicals at a facility, in addition to actual releases into the environment.

Section 324 of EPCRA generally requires information on chemicals reported for emergency planning purposes, disclosure on the TRI, and followup emergency notices of actual releases to be made available to the general public.²⁷ CERCLA does not include similar public disclosure requirements. However, followup emergency notices subject to EPCRA generally would include information on releases of hazardous substances that are subject to CERCLA. Section 322 of EPCRA authorizes the withholding of certain sensitive or confidential information from disclosure to the general public under Section 324.²⁸ As a matter of practice, the National Response Center also maintains a publicly available database that tracks the nature and general location of releases of hazardous substances reported under CERCLA, but not private or confidential information.²⁹ The following discussion of EPCRA focuses on emergency notification of releases into the environment potentially relevant to air releases, and statutory exemptions from notification in current law.³⁰

²³ See U.S. Congress, Senate Committee on Environment and Public Works, *A Legislative History of the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499)*, committee print, prepared by Congressional Research Service, 101st Cong., 2nd sess., 1990, S. Prt. 101-120 (Washington: GPO, 1990).

²⁴ 42 U.S.C. §§11001-11050.

²⁵ For emergency planning, reportable quantities of extremely hazardous substances are codified in federal regulation at 40 C.F.R. Part 355, Appendix A, and of hazardous chemicals are codified in federal regulation at 40 C.F.R. Part 370.

²⁶ Threshold quantities subject to reporting for the TRI are codified in federal regulation at 40 C.F.R. Part 372.

²⁷ 42 U.S.C. §11044.

²⁸ 42 U.S.C. §11042.

²⁹ Information publicly disclosed from the database is available in reports that track releases by calendar year, available on the National Response Center's website at: <http://nrc.uscg.mil>.

³⁰ For a broader discussion of EPCRA than presented in this memorandum, see CRS Report RL32683, *The Emergency Planning and Community Right-to-Know Act (EPCRA): A Summary*, by David M. Bearden.

Emergency Release Notification

Section 301 of EPCRA established the framework for the formation of State Emergency Response Commissions (SERCs) appointed by the governor of each state, and Local Emergency Planning Committees (LEPCs) within each state appointed by the respective SERC.³¹ Section 302 authorizes EPA to establish quantitative thresholds for the reporting of releases of extremely hazardous substances into the environment.³² Most of these substances also are listed as hazardous substances under CERCLA, but some of these substances are not designated under CERCLA.³³ Section 304 of EPCRA applies to emergency notification of releases into the environment.³⁴ This provision outlines three situations in which the reporting of releases of extremely hazardous substances or hazardous substances is required. In each situation, the person responsible for the release must notify the SERC and the appropriate LEPC that covers the local jurisdiction where the release occurs.

Two of these situations are contingent upon the release being subject to reporting to the National Response Center under Section 103 of CERCLA. Section 304(a)(1) of EPCRA requires the notification of a release of an extremely hazardous substance to the SERC and the appropriate LEPC, if the release also would require notification as a hazardous substance under Section 103 CERCLA.³⁵ If a substance is not designated as an extremely hazardous substance, Section 304(a)(3) requires the reporting of a release to the SERC and the appropriate LEPC if the release still would require notification as a hazardous substance under Section 103 of CERCLA.³⁶

Section 304(a)(2) of EPCRA covers a third situation in which a substance is separately listed as an extremely hazardous substance, but is not subject to reporting under Section 103 of CERCLA. Section 304(a)(2) requires the reporting of a release of a separately listed extremely hazardous substance in such instances, if the release:

- is not a federally permitted release as defined in Section 101(10) of CERCLA,³⁷
- is in an amount in excess of a reportable quantity that EPA designated under Section 302, and
- “occurs in a manner” which would require notification under Section 103 of CERCLA.³⁸

With respect to the third criterion, the phrase “occurs in a manner” generally has been implemented over time to mean the nature of the release in terms of how the substance enters the environment. Section 329 of EPCRA defines the term “release” and “environment” similar in scope to CERCLA.³⁹ The regulations that EPA promulgated to implement Section 304 reflect these statutory definitions.⁴⁰

³¹ 42 U.S.C. §11001.

³² 42 U.S.C. §11002.

³³ Reportable quantities of extremely hazardous substances subject to emergency release notification under EPCRA are codified in federal regulation at 40 C.F.R. Part 355, Appendix A.

³⁴ 42 U.S.C. §11004.

³⁵ 42 U.S.C. §11004(a)(1).

³⁶ 42 U.S.C. §11004(a)(3).

³⁷ 42 U.S.C. §9601(10).

³⁸ 42 U.S.C. §11004(a)(2).

³⁹ 42 U.S.C. §11049. The definition of the term “release” in EPCRA is nearly identical to that in CERCLA. The definition of the term “environment” in EPCRA is similar to CERCLA, but is more generally worded in its description to encompass “water, air, and land and the interrelationship which exists among and between water, air, and land and all living things.”

⁴⁰ 40 C.F.R. §355.61.

Statutory Exemptions

In any of these scenarios involving extremely hazardous substances or hazardous substances, Section 304(a)(4) exempts a release of either substance from reporting under EPCRA, if the release would result in exposure to persons solely within the site or sites on which a facility is located.⁴¹ Other factors also may determine whether a release is subject to reporting under EPCRA. In each instance of applicability, Section 304 refers to the reporting of a release at facilities where a hazardous chemical is produced, used, or stored. Conversely, if a hazardous chemical is not produced, used, or stored, at a facility, the reporting requirements do not apply.

Section 311(e) generally defines the term “hazardous chemical” to mean any such chemical regulated under the Occupational Safety and Health Act that is subject to federal requirements for hazard communication in the workplace.⁴² However, Congress excluded certain uses from this definition in EPCRA, thereby exempting these uses from reporting requirements of the statute. Among those more directly relevant to the agricultural sector, uses of “any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer” are excluded from EPCRA. The statute does not further describe or define the scope of these uses though. Section 329(5) cross-references the definition in Section 311(e) for application of this exclusion across the requirements of the statute. Congress did not include a similarly broad exclusion from CERCLA for releases of hazardous substances used in routine agricultural operations.

Animal Waste

“Animal waste” per se is not designated in CERCLA as a hazardous substance or in EPCRA as an extremely hazardous substance. Numerous studies have examined the chemical constituency of animal waste, and associated chemical by-products that may be generated from decomposition of the organic matter. For example, a 2003 study by the National Research Council found that air emissions from animal waste commonly include ammonia, hydrogen sulfide, methane, volatile organic compounds, and particulate matter that may consist of various chemicals.⁴³ Of these chemicals, ammonia and hydrogen sulfide are designated as hazardous substances in regulation under CERCLA⁴⁴ and as extremely hazardous substances in regulation under EPCRA.⁴⁵ The threshold for the reportable quantity of a release of ammonia or hydrogen sulfide into the environment under either CERCLA or EPCRA is 100 pounds during a 24-hour period into any media (e.g., air, water, or soils).

If such quantity were released into the ambient air, the concentrations generally would decline with increasing distance from the point of release as a result of dispersion.⁴⁶ The National Research Council 2003 study noted that potential risks from air releases would depend on exposure that may vary by site and among individuals. The Council found “little scientific evidence” that exposures beyond the boundaries of animal feeding operations have significant effects on human health because the

⁴¹ 42 U.S.C. §11004(a)(4).

⁴² 42 U.S.C. §11021(e). This provision of EPCRA references the Occupational Safety and Health Administration’s definition of a hazardous chemical codified in federal regulation at 29 C.F.R. §1910.1200(c) that means “any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiant, combustible dust, pyrophoric gas, or hazard not otherwise classified.”

⁴³ National Academies, National Research Council, *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*, 2003, 263 pp. available at: <https://www.nap.edu/catalog/10586/air-emissions-from-animal-feeding-operations-current-knowledge-future-needs>.

⁴⁴ 40 C.F.R. §302.4.

⁴⁵ 40 C.F.R. Part 355, Appendix A.

⁴⁶ The rate of dispersion of a chemical released into ambient air would depend on multiple factors (e.g., properties of the chemical, wind, temperature, humidity, and interaction with other chemicals present in the atmosphere).

concentrations “usually” are below threshold levels that would present a health risk.⁴⁷ The Council observed that risks of inhalation may be more significant within the boundaries of an animal feeding operation and within enclosed animal housing where concentrations are higher. The Council identified technical challenges in capturing and measuring air releases from animal waste for regulatory purposes, but recommended additional research and the development of best management practices to mitigate air releases. Additional studies have examined these issues since that time.⁴⁸

EPA 2008 Rule

As a matter of implementation, EPA historically has not applied CERCLA and EPCRA to air releases of hazardous substances from animal waste at farms, with the exception of large concentrated animal feeding operations (CAFOs) subject to EPCRA under a 2008 rule. On December 18, 2008, EPA finalized a rule during the George W. Bush Administration to establish an administrative exemption from reporting requirements of CERCLA for air releases of hazardous substances from animal waste at all farms, and to apply EPCRA only to large CAFOs of certain sizes.⁴⁹ The rule specified thresholds for the maximum number of livestock by type that an operation could stable or confine to qualify for the exemption from reporting under EPCRA. The rule exempted air releases from animal waste of livestock that are not stabled or confined. Operations that stable or confine livestock in numbers equal to or greater than the following thresholds were considered sufficiently large to make them subject to emergency notification requirements for air releases in excess of reportable quantities under EPCRA:

- 700 mature dairy cows, whether milked or dry;
- 1,000 veal calves;
- 1,000 cattle other than mature dairy cows or veal calves (cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs);
- 2,500 swine each weighing 55 pounds or more;
- 10,000 swine each weighing less than 55 pounds;
- 500 horses;
- 10,000 sheep or lambs;
- 55,000 turkeys;
- 30,000 laying hens or broilers, if the farm uses a liquid manure handling system;
- 125,000 chickens (other than laying hens), if the farm uses other than liquid manure handling system;
- 82,000 laying hens, if the farm uses other than a liquid manure handling system;
- 30,000 ducks (if the farm uses other than a liquid manure handling system); or
- 5,000 ducks (if the farm uses a liquid manure handling system).⁵⁰

⁴⁷ National Academies, National Research Council, *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs*, 2003, p. 66.

⁴⁸ For example, see National Association of Local Boards of Health, *Understanding Concentrated Animal Feeding Operations and Their Impact on Communities*, 2010, prepared under a cooperative agreement with the Centers for Disease Control and Prevention, available at: https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf. This study includes a bibliography of numerous other studies as well.

⁴⁹ U.S. Environmental Protection Agency, “CERCLA/EPCRA Administrative Reporting Exemption for Air Releases of Hazardous Substances from Animal Waste at Farms,” 73 *Federal Register* 76948-76960, December 18, 2008.

⁵⁰ 40 C.F.R. §355.31(g).

In the preamble to the final rule, EPA noted a petition submitted in August 2005 by the National Chicken Council, National Turkey Federation, and U.S. Poultry and Egg Association requesting an administrative exemption from CERCLA and EPCRA reporting requirements specifically for ammonia emissions from poultry operations. However, EPA indicated that the final rule was not a direct response to that petition.⁵¹ EPA stated that the exemption from reporting was warranted in its view because a response action would be “impractical” or “unlikely” in most instances, and that the exemption was consistent with the agency’s goal of reducing the “burden” of reporting releases for which response actions most often are not expected.⁵² EPA explained that its decision to apply EPCRA to large CAFOs was based on a response to public comments on the 2007 proposed rule by some who expressed a desire for this information because of the potentially greater magnitude of air releases.⁵³ The proposed rule would have exempted CAFOs of any size from reporting requirements.⁵⁴

The 2008 rule did not exempt air releases from animal waste at farms from liability under Section 107 of CERCLA or otherwise restrict EPA’s authority under Section 104 to take federal response actions if warranted to protect human health and the environment. The 2008 rule also did not exempt air releases of hazardous substances from other potential sources at farms, or releases of hazardous substances from animal waste into other environmental media (e.g., soil, groundwater, or surface water), if such releases were to exceed thresholds for reporting.

However, releases from animal waste into surface waters in compliance with a Clean Water Act discharge permit would be treated as a “federally permitted release” under Section 101(10) of CERCLA.⁵⁵ Section 103(a) exempts federally permitted releases from reporting under the statute,⁵⁶ and Section 107(j) exempts federally permitted releases from liability under the statute.⁵⁷ Federally permitted releases exempt under CERCLA also are exempt from reporting under EPCRA. Exemptions for federally permitted releases are based on the presumption that regulation under another federal law would address potential risks. In current law, there is no similar permitting of air releases of hazardous substances from animal waste upon which to base a federally permitted release exemption.

Litigation Challenging the EPA 2008 Rule

The Waterkeeper Alliance and other organizations filed a petition for review in court to challenge EPA’s authority to issue the 2008 rule, arguing against EPA’s conclusion that the reporting of hazardous substance releases from animal waste at farms under CERCLA and EPCRA is “unnecessary.”⁵⁸ On April 11, 2017, the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) granted the petition and vacated the exemptions from reporting in the 2008 rule.⁵⁹ The court held that Congress did not authorize EPA to exempt releases of hazardous substances from the statutory reporting requirements under CERCLA and EPCRA.⁶⁰ The court concluded that the information gained from this reporting

⁵¹ U.S. Environmental Protection Agency, “CERCLA/EPCRA Administrative Reporting Exemption for Air Releases of Hazardous Substances from Animal Waste at Farms,” 73 *Federal Register* 76951, December 18, 2008.

⁵² *Ibid.*, 73 *Federal Register* 76949.

⁵³ *Ibid.*, 73 *Federal Register* 76950.

⁵⁴ U.S. Environmental Protection Agency, “CERCLA/EPCRA Administrative Reporting Exemption for Air Releases of Hazardous Substances from Animal Waste,” 72 *Federal Register* 73700-73708, December 28, 2007.

⁵⁵ 42 U.S.C. §9601(10).

⁵⁶ 42 U.S.C. §9603(a).

⁵⁷ 42 U.S.C. §9607(j).

⁵⁸ Petition for Review, *Waterkeeper Alliance v. Env’tl. Prot. Agency*, 853 F.3d 527 (D.C. Cir. Jan. 15, 2009) (No. 09-1017).

⁵⁹ *Waterkeeper Alliance v. Env’tl. Prot. Agency*, 853 F.3d 527, 537-38 (D.C. Cir. 2017).

⁶⁰ *Id.* at 534-36.

would not have “trivial or no value,” but that the information could potentially provide “some real benefits” to the public and local emergency responders.⁶¹ The court subsequently approved multiple EPA motions to stay (i.e., delay) the issuance of an order to lift the exemptions in the 2008 rule to allow more time to develop procedures for reporting and collecting release data, considering the potentially large number of farms that had not reported previously under the 2008 rule. The court granted the most recent stay on February 1, 2018, extending it until May 1, 2018.⁶²

Trump Administration Guidance

During the Trump Administration, EPA has issued guidance to instruct farms that they should comply with the reporting of air releases under Section 103 of CERCLA through filing annual continuous release reports with the National Response Center once the court order becomes effective after the expiration of the stay.⁶³ EPA has issued guidelines for farms to estimate the quantity of continuous releases using various existing methodologies, and has announced that the agency is developing additional methodologies to better inform emission estimates. This guidance for continuous release reporting and emission estimates applies to reporting under Section 103 of CERCLA.

EPA also has issued separate guidance outlining the Trump Administration’s interpretation that farms using substances in “routine agricultural operations” are excluded from emergency notification of releases under Section 304 of EPCRA.⁶⁴ Based on this interpretation, EPA has announced that farms are not required to report air releases from animal waste to state and local officials, and that the agency intends to conduct a rulemaking on its interpretation of this exemption. The George W. Bush Administration did not render an interpretation of the “routine agricultural operations” exemption in its 2008 rule and instead determined that Section 304 of EPCRA did apply to large CAFOs. The April 2017 D.C. Circuit decision made no reference to this particular exemption in EPCRA.

S. 2421

As introduced, S. 2421 would amend Section 103(e) of CERCLA to exempt “air emissions from animal waste (including decomposing animal waste) at a farm” from reporting to the National Response Center regardless of the quantity of the release of hazardous substances in air emissions. The bill would define the term “animal waste”:

- to mean “feces, urine, or other excrement, digestive emission, urea, or similar substances emitted by animals (including any form of livestock, poultry, or fish),” and
- to include “animal waste that is mixed or commingled with bedding, compost, feed, soil, or any other material typically found with such waste.”

S. 2421 would define the term “farm” to mean a site or area (including associated structures) that:

⁶¹ *Id.* at 535-38.

⁶² *Per Curiam Order, Waterkeeper Alliance v. Envtl. Prot. Agency*, 853 F.3d 527 (D.C. Cir. Feb. 1, 2018) (No. 09-1017).

⁶³ During the Trump Administration, EPA has issued guidance for farms to report air releases from animal waste once the court order becomes effective. See “CERCLA and EPCRA Reporting Requirements for Air Releases of Hazardous Substances from Animal Waste at Farms” available at: <https://www.epa.gov/epcra/cercla-and-epcra-reporting-requirements-air-releases-hazardous-substances-animal-waste-farms> (as viewed on March 7, 2018).

⁶⁴ EPA, Office of Land and Emergency Management, *Does EPA Interpret EPCRA Section 304 to require farms to report releases from animal waste?*, October 25, 2017, available at: <https://www.epa.gov/epcra/question-and-answer-epcra-reporting-requirements-air-releases-hazardous-substances-animal>.

- is used “for the production of a crop;” or “the raising or selling of animals (including any form of livestock, poultry, or fish);” and
- “under normal conditions, produces during a farm year any agricultural products with a total value equal to not less than \$1,000.”

S. 2421 would not exempt such air emissions from federal response authority under Section 104 if action were warranted to protect human health and the environment, or potential liability under Section 107.

In current law, Section 103(e) of CERCLA exempts the proper application of a federally registered pesticide from reporting. S. 2421 would strike Section 103(e) in its entirety, *reinsert* this existing exemption, and add an exemption for air emissions from animal waste at farms as defined in the bill. S. 2421 would not alter the treatment of pesticides under CERCLA in current law.

S. 2421 would not amend EPCRA. However, exempting releases of hazardous substances in air emissions from animal waste at farms from reporting under Section 103 of CERCLA would have the effect of exempting such releases from reporting to state and local officials under Section 304(a)(1) and Section 304(a)(3) of EPCRA. Reporting is required under both of these provisions contingent upon reporting of hazardous substances required under Section 103 of CERCLA. Exempting a release from reporting under Section 103 of CERCLA thereby would exempt the same release from reporting under these two provisions in Section 304 of EPCRA.

Whether releases of extremely hazardous substances in air emissions from animal waste would remain subject to other provisions of EPCRA would depend on two factors. First, Section 304(a)(2) applies to releases of separately listed extremely hazardous substances that are not subject to reporting as hazardous substances under Section 103 of CERCLA. For example, ammonia and hydrogen sulfide are listed separately as extremely hazardous substances under EPCRA, not only as hazardous substances under CERCLA. An exemption from CERCLA therefore may not necessarily apply to separately listed extremely hazardous substances covered under Section 304(a)(2) of EPCRA. Second, if substances released from animal waste may be considered substances used in routine agricultural operations, such releases may be exempt from reporting under EPCRA altogether, as the Trump Administration has interpreted.

If enacted into law, S. 2421 would amend CERCLA to provide an exemption from the reporting of air releases of hazardous substances emitted by animal waste at farms. In turn, this amendment would have the effect of exempting the same releases of hazardous substances from reporting under EPCRA that is contingent upon reporting required under CERCLA. However, the potential applicability of EPCRA to air releases of separately listed extremely hazardous substances may depend on whether the Trump Administration’s interpretation of the exemption for substances used in routine agricultural operations is challenged. Any potential reporting requirements under state or local laws may continue to apply though, as neither CERCLA nor EPCRA would preempt such requirements.



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MEMORANDUM

March 13, 2018

To: Senate Committee on Environment and Public Works
Attention: Kusai Merchant

Honorable Cory A. Booker, Ranking Member
Subcommittee on Superfund, Waste Management, and Regulatory Oversight
Attention: Adam Zipkin

From: David M. Bearden, Specialist in Environmental Policy, dbearden@crs.loc.gov, 7-2390

Subject: **Supplemental Analysis: Fair Agricultural Reporting Method Act/FARM Act (S. 2421)**

This memorandum responds to your request for a more detailed discussion of the analysis presented in a CRS memorandum provided on March 7, 2018. CRS prepared this earlier memorandum to respond to your initial request for an analysis of amendments to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in the Fair Agricultural Reporting Method Act or “FARM Act” (S. 2421), as introduced on February 13, 2018. As discussed in the March 7th CRS memorandum, S. 2421 would exempt air releases of hazardous substances emitted by animal waste at farms from reporting requirements under CERCLA, and would have a bearing on the applicability of reporting requirements under Section 304 of the Emergency Planning and Community Right-to-Know Act (EPCRA).

This supplemental memorandum elaborates upon the analysis presented in the March 7th CRS memorandum to outline circumstances in which the emergency notification requirements in Section 304 of EPCRA would apply under current law, and the bearing of S. 2421 on the applicability of these requirements to air releases emitted by animal waste. The March 7th CRS memorandum provides additional background information in support of this analysis, and offers a broader examination of how S. 2421 would define the terms “animal waste” and “farm” for purposes of the bill. I hope that this supplemental memorandum is helpful to address your questions about circumstances in which EPCRA may continue to apply if S. 2421 were enacted. If you need further assistance from CRS in consideration of this legislation or related issues, please do not hesitate to contact me.

Section 304 of EPCRA

As explained in the March 7th CRS memorandum, Section 304 of EPCRA outlines three situations in which the reporting of releases of extremely hazardous substances or hazardous substances into the environment is required.¹ In each situation, the person responsible for the release must notify the State Emergency Response Commission (SERC) and the appropriate Local Emergency Planning Committee

¹ 42 U.S.C. §11004.

(LEPC) that covers the local jurisdiction where the release occurs. Two of these situations are contingent upon the release being subject to notification under Section 103 of CERCLA for reporting to the National Response Center.² The third situation is not contingent upon reporting under CERCLA. The three situations covered in Section 304 of EPCRA are as follows.

- Section 304(a)(1) requires notification of releases of extremely hazardous substances listed under EPCRA, if the release would require notification for hazardous substances under Section 103 of CERCLA.³
- Section 304(a)(3) requires notification of releases of other hazardous substances that are not separately listed as extremely hazardous substances under EPCRA, if the release would require notification under Section 103 of CERCLA.⁴
- Section 304(a)(2) requires notification of releases of extremely hazardous substances listed under EPCRA (but that are not subject to notification under CERCLA), if three criteria are met.⁵

In this third situation, releases of extremely hazardous substances listed under EPCRA would require notification under Section 304(a)(2), if the release:

- (A) is not a federally permitted release as defined in Section 101(10) of CERCLA;⁶
- (B) is in an amount in excess of a reportable quantity that the U.S. Environmental Protection Agency (EPA) designated under Section 302 of EPCRA;⁷ and
- (C) “occurs in a manner” that would require notification under Section 103 of CERCLA.

S. 2421

S. 2421 would amend Section 103(e) of CERCLA to exempt “air emissions from animal waste (including decomposing animal waste) at a farm” from reporting to the National Response Center regardless of the quantity of the release of hazardous substances in air emissions. The bill would not amend Section 304 or any other provisions of EPCRA. Although S. 2421 would not amend this statute, the bill would have the effect of eliminating reporting requirements under Section 304(a)(1) and Section 304(a)(3) of EPCRA for air releases of hazardous substances emitted by animal waste at farms, in so far as the terms “animal waste” and “farm” are defined in the bill.

Both Section 304(a)(1) and Section 304(a)(3) of EPCRA are contingent upon reporting required under Section 103 of CERCLA. Exempting a release from reporting under Section 103 of CERCLA thereby would have the effect of exempting the same release from reporting under Section 304(a)(1) and Section 304(a)(3) of EPCRA. The April 2017 court decision referenced in the March 7th CRS memorandum (*Waterkeeper Alliance, et al., v. EPA*) described this statutory relationship in terms of “a release that triggers the CERCLA duty also automatically trips the EPCRA reporting requirements in subsections (1) and (3)” of Section 304.⁸

² 42 U.S.C. §9603.

³ 42 U.S.C. §11004(a)(1).

⁴ 42 U.S.C. §11004(a)(3).

⁵ 42 U.S.C. §11004(a)(2).

⁶ 42 U.S.C. §9601(10).

⁷ 42 U.S.C. §11002.

⁸ *Waterkeeper Alliance v. Env'tl. Prot. Agency*, 853 F.3d 527, 537-38 (D.C. Cir. 2017).

S. 2421 would not have a bearing on the reporting of releases of extremely hazardous substances under Section 304(a)(2) of EPCRA though, as this provision is not contingent upon reporting required under Section 103 of CERCLA. If the exemption from CERCLA in S. 2421 were enacted, the applicability of Section 304(a)(2) therefore would remain the same as in current law. An air release of an extremely hazardous substance emitted by animal waste at a farm would be subject to Section 304(a)(2) if all three statutory criteria for reporting were met.

An air release of an extremely hazardous substance emitted by animal waste would satisfy the first criterion in Section 304(a)(2)(A) if it were not a federally permitted release. Section 101(10) of CERCLA defines the term “federally permitted release” to mean releases regulated under other specific laws. Section 101(10)(H) authorizes a federally permitted release for “any emission into the air” subject to a permit, regulation, or State Implementation Plan, pursuant to the Clean Air Act.⁹ CRS is not aware of the use of these authorities to regulate air releases emitted by animal waste upon which a federally permitted release presently could be based. If such air releases were permitted under the Clean Air Act, the releases would be exempt from reporting and liability under CERCLA as a federally permitted release, and thereby exempt from reporting to state and local officials under Section 304 of EPCRA.

An air release of an extremely hazardous substance emitted by animal waste would satisfy the second criterion in Section 304(a)(2)(B) if the quantity of the release were to exceed the quantitative threshold for reporting that EPA designated in federal regulation pursuant to Section 302 of EPCRA.¹⁰ For example, EPA separately listed ammonia and hydrogen sulfide (substances commonly emitted by animal waste) as extremely hazardous substances, and designated 100 pounds released during a 24-hour period as the threshold for reporting under Section 302 of EPCRA. Air releases of ammonia or hydrogen sulfide emitted by animal waste in excess of 100 pounds during a 24-hour period therefore would satisfy this second criterion in Section 304(a)(2)(B).

An air release of an extremely hazardous substance emitted by animal waste (e.g., ammonia or hydrogen sulfide) would satisfy the third criterion of Section 304(a)(2)(C) of EPCRA, if the release were to occur in the same *manner* as a “release” that would require reporting under CERCLA. As outlined in the March 7th CRS memorandum, the term “release” in CERCLA is relatively broad with respect to the manner in which a hazardous substance may enter the environment, including spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.¹¹ The term “environment” is defined in Section 101(8) of CERCLA to include surface water, groundwater, a drinking water supply, surface soils, sub-surface soils, or ambient air.¹² Section 329 of EPCRA defines the terms “release” and “environment” similar in scope to CERCLA.¹³ The federal regulations promulgated under Section 304 of EPCRA reflect these statutory definitions.¹⁴ Both CERCLA and EPCRA generally treat emissions into the ambient air as releases into the environment.

In implementation, EPA has treated the phrase “occurs in a manner” in EPCRA Section 304(a)(2)(C) to mean the nature of the release in terms of how a substance enters the environment, not that reporting *is* required under Section 103 of CERCLA. Otherwise, Section 304(a)(2) would be rendered meaningless in

⁹ 42 U.S.C. §9601(10)(H).

¹⁰ Reportable quantities for extremely hazardous substances subject to emergency release notification under Section 304 of EPCRA are codified in federal regulation at 40 C.F.R. Part 355, Appendix A.

¹¹ 42 U.S.C. §9601(22).

¹² 42 U.S.C. §9601(8).

¹³ 42 U.S.C. §11049. The definition of the term “release” in EPCRA is nearly identical to that in CERCLA. The definition of the term “environment” in EPCRA is similar to CERCLA, but is more generally worded in its description to encompass “water, air, and land and the interrelationship which exists among and between water, air, and land and all living things.”

¹⁴ 40 C.F.R. §355.61.

covering releases of extremely hazardous substances that do not require reporting as hazardous substances under CERCLA, while requiring reporting under CERCLA at the same time.

The March 7th CRS memorandum observed that the exemption from reporting under Section 103 of CERCLA in S. 2421 may not necessarily exempt releases of separately listed extremely hazardous substances from reporting under Section 304(a)(2) of EPCRA. The applicability of this provision to a particular release would depend on whether all three statutory criteria outlined above are met. Regardless of these criteria though, Section 304 in its entirety may not apply to air releases from animal waste at farms if the Trump Administration's interpretation of the exemption for substances used in routine agricultural operations is not challenged.¹⁵ S. 2421 would not have a bearing on this exemption.

Also as noted in the March 7th CRS memorandum, potential reporting requirements under state or local laws may continue to apply regardless of an exemption in federal law, as neither CERCLA nor EPCRA would preempt such state or local requirements.

¹⁵ The March 7th CRS memorandum provides further discussion of the Trump Administration's interpretation of the exemption in Section 311(e) of EPCRA for substances used in routine agricultural operations. This interpretation is outlined in the following agency guidance: EPA, Office of Land and Emergency Management, *Does EPA Interpret EPCRA Section 304 to require farms to report releases from animal waste?*, October 25, 2017, available at: <https://www.epa.gov/epcra/question-and-answer-epcra-reporting-requirements-air-releases-hazardous-substances-animal>.

Senator CARPER. I want to thank my colleague for yielding and giving me this opportunity to ask some questions so I can get going to another important meeting.

Thank you all for being here, for your testimony.

I want to come back to something that Mr. Satterfield said, talking about I think it was the University of Georgia that you talked about, with the level of emissions with respect to the poultry industry. Was that the University of Georgia?

Mr. SATTERFIELD. University of Georgia, yes, sir.

Senator CARPER. In about 30 seconds, just give us that real quick synopsis of that study.

And then what I am going to ask is Mr. Kuhn to compare and contrast what you presented to us today with what the University of Georgia is reporting here. Please. Just real briefly.

Mr. SATTERFIELD. The University of Georgia study was looking at concentrations of ammonia outside of chicken houses, parts per million versus mass or volume of emissions that come out of the houses, so what is the air quality. And the study found that the measurements were made further and further away from the chicken houses, the ammonia detection levels kept going down and down and down. At no time during that study did the odor threshold levels exceed or meet OSHA's standards. And even when there were ammonia levels detected, they were well below EPA's standard.

So, you have to understand that as you move farther away, you are not impacting the neighbors as much as some people would have you believe. And it is important to understand that inside the chicken house, if the ammonia is too high, those birds are not going to live. Taking care of the animal, the welfare of the animal is the No. 1 job of our growers, and preventing ammonia creation is among their top priorities.

If the ammonia is over 25 parts per million, it is hazardous for the birds, obviously not good for the farmers who are in the houses working with the houses. So a lot of efforts are made to keep the ammonia levels low. Some of that is done through improvements in feed conversion, the conversion of the feed ingredients into meat. We see each year a better feed conversion, more of the nutrients being made into meat, which means there is less opportunity for nitrogen to come out the rear end of the chicken and eventually form ammonia.

There are products available that can be put down in the chicken houses between flocks that will lower the pH, they are acid products that lower the pH, which discourages the formation of ammonia. That is an important part of the process. The U.S. Department of Agriculture's Natural Resources Conservation Service provides cost share money for that.

Keeping the houses dry is important because the ammonia needs moisture to form. It is also good for bird health.

And then we have a program, as you know because you have been out on some farms, where we have a full time employee whose job is to work with chicken growers to put up vegetative buffers around the chicken houses; trees, bushes, tall grasses. So those things help keep the ammonia levels low, keep them from dissipating to neighboring properties. As the Georgia study found,

even without all those things, there still is a low level moving off the property.

Senator CARPER. All right, thanks. Thanks very much.

What Mr. Satterfield is talking about reminds me of our layered approach that we have for border security. It is not just one thing, it is like a whole host of things to enable us to keep bad people and bad products from coming across our borders.

Mr. Kuhn, thank you very much for your testimony. It is great to have you here as well. Just react very briefly, if you will, I don't have much time, just real briefly, maybe about a minute, to what Mr. Satterfield has said in the Georgia study.

Mr. KUHN. Yes, certainly.

Senator CARPER. Mr. Chairman, could I ask unanimous consent the University of Georgia study that Mr. Satterfield has talked about be made a part of the record, please?

Senator ROUNDS. Is there objection?

Without objection.

[The referenced information follows:]

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Article in *The Journal of Applied Poultry Research* · September 2009

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Ammonia concentrations downstream of broiler operations¹

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Primary Audience: Poultry Producers, Government Environmental Agencies, Researchers

SUMMARY

Within broiler production facilities, NH₃ concentrations have always been of concern from a bird performance and worker health standpoint. However, NH₃ emitted from poultry houses is receiving increased attention from the environmental and community nuisance perspectives. Studies on NH₃ emissions from poultry operations found within the literature do not address how NH₃ disperses or the actual concentrations observed at varying distances downwind from poultry houses. The objective of this study was to measure downwind NH₃ concentrations emitted from broiler houses when ventilation rates would be at a maximum. Open-path laser spectrometers were utilized for this study and for period 1 were placed 100, 200, and 300 ft from the houses from 28 to 49 d and in period 2 were placed at 100, 200, and 500 ft from 50 to 56 d. Data were collected during the last 4 wk of a 56-d grow-out cycle in 2 periods during a summer flock on a 4-house broiler farm located in northeastern Georgia. Ammonia concentrations were lower as distance from the houses increased, with NH₃ levels at 100, 200, 300, and 500 ft being less than 1 ppm in approximately 60, 75, 85, and 90% of the observations, respectively. Ammonia concentrations extending to 100 ft from the houses were influenced by the tunnel fans themselves. Wind direction and wind speed were the factors that significantly influenced downstream NH₃ concentrations beyond 100 ft. At no time did measured NH₃ levels meet or exceed established Occupational Safety and Health Administration-US Environmental Protection Agency NH₃ odor-detection threshold values during this study.

Key words: wind speed, climate, wind direction, emissions

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DESCRIPTION OF PROBLEM

Air emissions are important issues for the poultry industry from both environmental and nuisance viewpoints. The 2004 report from the

National Academy of Sciences Ad Hoc Committee on Air Emissions from Animal Feeding Operations concluded that the existing data in the literature regarding NH₃ emission rates from animal feeding operations was inconsistent and

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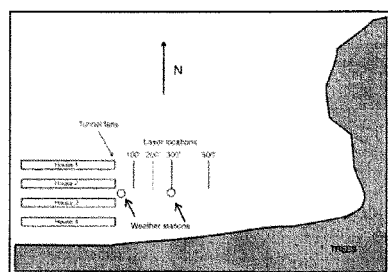


Figure 1. Study farm layout (not to scale).

that more work needed to be performed in this area of study [1]. Studies in trace gas emissions from commercial poultry operations do not address gas concentrations once they are exhausted from the poultry house [2–6]. Litigation against growers has implicated NH_3 and particulate matter as a nuisance or health-related issue [7]. Knowledge of NH_3 dissipation is needed for

poultry operations, poultry companies, and local governments when addressing nuisance complaints and lawsuits concerning these issues.

One objective of this study was to measure NH_3 concentrations at distances from the source of emissions (tunnel fans) on a commercial broiler farm during periods of high air exchange rates typically encountered during hot weather with near-market-age birds. A second objective was to determine how wind speed and direction influenced NH_3 concentrations on a tunnel-ventilated broiler farm.

MATERIALS AND METHODS

This study was conducted on a 4-house broiler farm in northeastern Georgia, from July 18 through August 12, 2007. The 40×500 ft tunnel-ventilated, dropped-ceiling houses were orientated approximately east-to-west, with approximately 750 ft of open pasture located on the east end of the 4 houses (Figure 1). The houses sit on a fill with a gradual 10-ft drop-off occur-

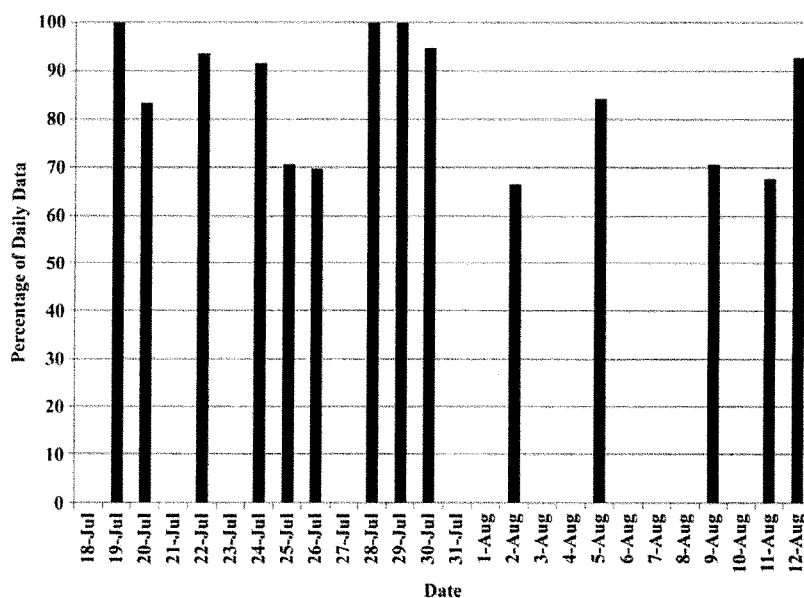


Figure 2. Percentage of usable NH_3 data for each day used in the analysis. Useable data were defined as having an observation at each laser location and having at least 67% of the daily data present.

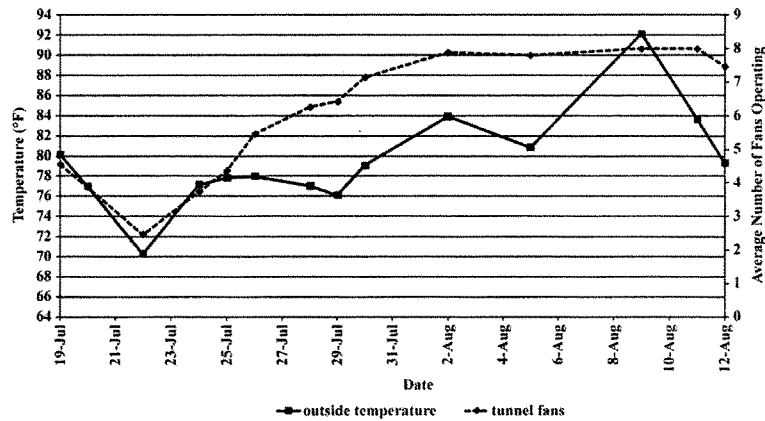


Figure 3. Average daily outside temperature and tunnel fan operation.

ring for the first 90 ft. The field was relatively flat, with a 1% slope from 100 to 500 ft. The houses were equipped with five 36-in. side-wall exhaust fans (approximately 10,000 ft³/min at 0.05 in. of static pressure) and eight 50-in. tunnel fans (approximately 23,000 ft³/min at 0.05 in. of static pressure) [8], 6 of which were located in the eastern end wall and 1 of which was located on either side of the tunnel fan end wall. Evaporative cooling was provided by approximately 60 ft of 6-in. evaporative cooling pads located on each side wall of the western end of each of the 4 houses.

Approximately 23,500 birds were placed in each of the 4 houses. The monitoring study was initiated when the birds were 4 wk old. The study was concluded when the birds were marketed at approximately 8 wk of age. The litter in the houses had been in place for 2 previous flocks. The farm manager operated the houses according to standard industry practices.

Equipment was placed in the open pasture located to the east of the poultry houses. This position was chosen because of the open pasture location and the direction at which the air mass would be exiting the tunnel fans. To avoid confusion between downwind from the fans vs. ambient downwind, in this study, the direction of airflow from the fans was defined as down-

stream, whereas downwind was defined as the direction the ambient wind was blowing. Two weather stations [9] were placed on the farm to monitor temperature, RH, wind speed, and wind direction. Wind speed and direction sensors were placed 10.5 ft from the ground.

Downstream NH₃ concentrations were measured using open-path, line-averaged laser spectrometry [10]. These open-path lasers (OPL) use the principle of a single-line, fixed-wavelength radiation absorption within the near-infrared spectrum of 1,300 to 1,700 nm [11]. The OPL were tuned to 1,512 nm for the measurement of NH₃. Such a narrow absorption line avoids mutual absorption interference of other gases such as CO₂, CH₄, and water vapor. These instruments have been calibrated routinely at the factory and have an automatic internal reference procedure with a known NH₃ standard, and calibration was checked on site with standard gases before and after the study to account for any instrument drift.

Ammonia concentrations were measured downstream from the houses at 100-, 200-, and 300-ft distances from the houses for the first 3 wk of the study (28 to 49 d). During the last week of the study (50 to 56 d), NH₃ concentrations were measured at 100, 300, and 500 ft from the houses to obtain measurements farther away

from the houses when the greatest amount of air was being exchanged. The line-average concentration was measured over a path length of approximately 180 ft at 56 in. from the ground and was centered on houses 1 and 2 to avoid the effects that the trees located on the south side of house 4 might have on airflow during periods with wind (Figure 1).

All data were synchronized with house temperature, ventilation level (number of exhaust fans), and ventilation mode (tunnel vs. side-wall inlets), which were collected using a personal computer connected to the electronic environmental controllers in the houses.

Data Analysis

Measurements were taken and recorded per minute from weather stations and OPL. One-minute data were then averaged on a 15-min basis for analysis. There were periods throughout the study when NH_3 measurements could not be collected at 1 or more of the OPL locations, pri-

Table 1. Average ammonia concentrations for the 2 study periods

Location (ft)	Ammonia (ppm)	SEM	Observations ¹ (no.)
28 to 49 d			
100	0.528	0.017	914
200	0.479	0.016	914
300	0.328	0.011	914
50 to 56 d			
100	0.492	0.052	221
300	0.391	0.031	221
500	0.251	0.021	221

¹An observation is a 15-min average.

marily because of rain, condensation on the reflectors, or foggy conditions. Because one of the primary objectives of the study was to determine how NH_3 concentration varied with distance from the poultry houses, any 15-min period that did not have an NH_3 data point at each of the 3 OPL locations was not included for analysis. To represent average daily NH_3 concentrations more accurately, study days that did not have

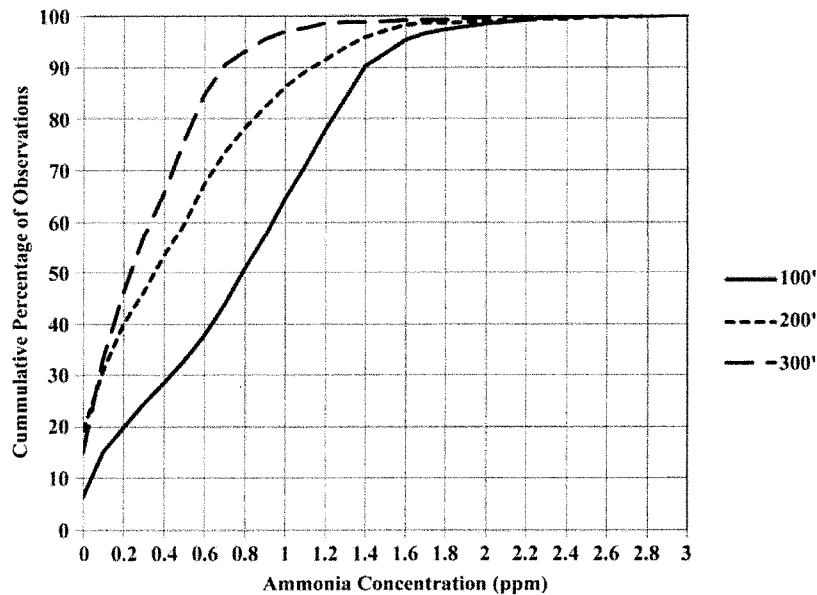


Figure 4. Cumulative percentage of observations with corresponding NH_3 concentration (28 to 49 d).

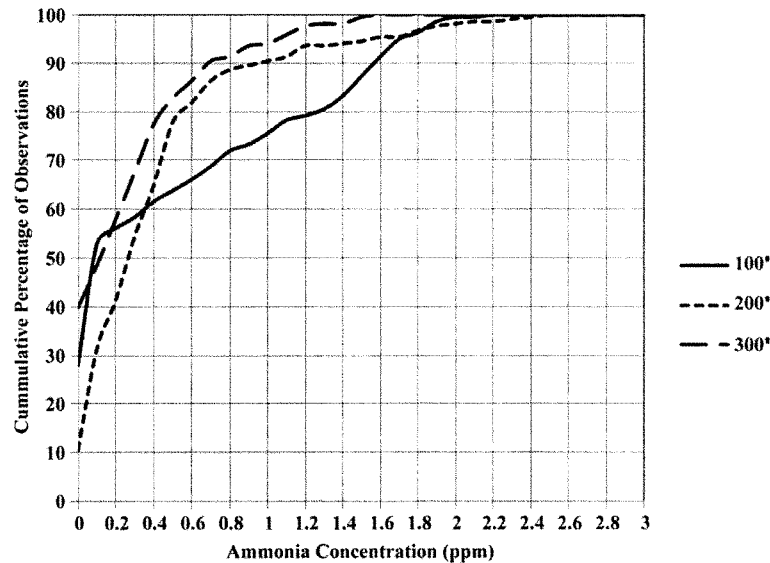


Figure 5. Cumulative percentage of observations with corresponding NH_3 concentration (50 to 56 d).

at least 67% of the data present were not used (Figure 2).

RESULTS AND DISCUSSION

The data indicated that the houses were in tunnel ventilation mode approximately 96% of the time. In tunnel ventilation mode, all fresh air enters the house through openings on the west end and is exhausted through the tunnel fans on the east end of the house. When not in tunnel mode, the houses were ventilated through a combination of side-wall air inlets evenly spaced down the length of the houses and a combination of side-wall exhaust fans and 1 or 2 tunnel fans. The average number of tunnel fans operating each day increased over the course of the flock, corresponding to flock age and average outside temperature (Figure 3). During the first week of the study, fewer than half the tunnel ventilation fans were required to maintain proper house conditions. During the last 2 wk of the study, essentially all the tunnel fans operated 24 h/d.

Average NH_3 concentrations during the 28- to 49-d period when the OPL were located at 100, 200, and 300 ft from the poultry houses are shown in Table 1. Average NH_3 concentration during the last week of the study (50 to 56 d) when the OPL were 100, 300, and 500 ft are also shown in Table 1. The highest NH_3 concentrations during both study periods were at the 100-ft OPL location and decreased with distance from the houses, ranging from approximately 0.50 ppm at 100 ft to approximately 0.25 ppm at 500 ft. (Note that the daily averages shown in Table 1 are based on data from the last 4 wk of an 8-wk flock when NH_3 production was at its highest.) It was expected that the downstream NH_3 concentrations would be much lower during the first few weeks of the flock, when the amount of NH_3 the houses emit is significantly lower, compared with the last 4 wk of the flock, because of reduced ventilation requirements, broiler size, and manure production. The overall flock average at each site would be lower than the values listed in Table 1.

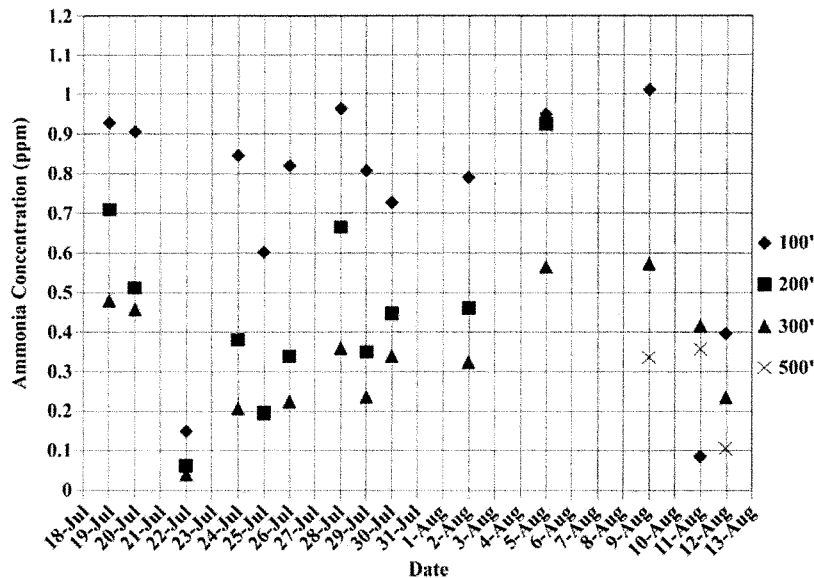


Figure 6. Daily average NH_3 concentration (56 in. from the soil surface).

Figures 4 and 5 show the cumulative percentage of observations vs. NH_3 concentration at the different locations for the 2 study periods. For the first study period, NH_3 concentrations were 1 ppm or less 64, 86, and 97% of the time at the 100-, 200-, and 300-ft locations, respectively. For the second study period, NH_3 concentrations were 1 ppm or less 76, 91, and 94% of the time at the 100-, 300-, and 500-ft locations, respectively.

During the 28- to 49-d period, the maximum recorded NH_3 concentrations at the 100-, 200-, and 300-ft locations were 2.9, 2.9, and 2.5 ppm, respectively. During the 50- to 56-d period, the maximum recorded NH_3 concentrations were 2.1, 2.4, and 1.6 ppm at 100, 300, and 500 ft, respectively. Although the closer sites were somewhat lower during the second study period, when the emissions were higher, the climatic effects of wind speed, wind direction, and temperature also were associated with concentration. All the above maximum NH_3 concentrations occurred only for a single 15-min measurement

period during the night. For the first study period, the observed NH_3 concentrations were 2 ppm or greater for an accumulative time of 4 h at the 100-ft location, 2 h at the 200-ft location, and 1 h at the 300-ft location. During the second study period, when the ventilation rate was higher, NH_3 concentrations were greater than 2 ppm for an accumulative time of 1 h or less at the 100- and 200-ft locations. It is important to note that 2 ppm is well below the detectable NH_3 odor threshold limit of between 5 and 50 ppm given by the US Environmental Protection Agency [12].

Average daily NH_3 concentrations downstream of the poultry houses increased over the course of the study (Figure 6). The general increasing trend was due to a combination of factors: NH_3 emission rates increase as birds get older and excrete more manure, and ventilation rates increase in response to a larger bird heat load and (in this study) higher ambient temperatures. There were 2 deviations in the general trend: 1) an ambient temperature decrease

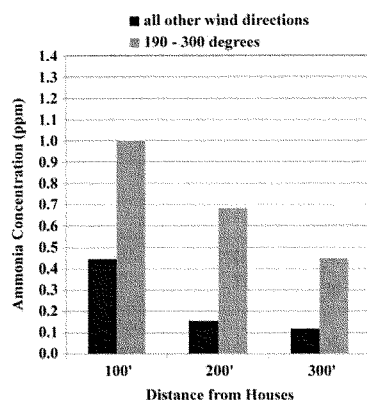


Figure 7. Average of 15-min NH_3 concentrations with respect to general wind direction for 28 to 49 d.

(July 22) with decreased tunnel ventilation and increased use of side-wall fans, creating greater dispersion of the exiting air, and 2) on August 11, the average NH_3 concentration at the 100-ft location being less than at either the 300- or 500-ft location. (The most likely cause for the latter relatively low NH_3 concentrations was an equipment error.) Average daily NH_3 concentrations decreased more from the 100- to 200-ft measurement locations than from the 200- to 300-ft locations or from the 300- to 500-ft locations. This relatively rapid decrease in NH_3 concentrations near the source is characteristic of the unstable air influence on dispersion. Variability in the rate of decrease is due to the influence of temperature, wind direction, and wind speed.

Wind direction was a significant influence on downstream NH_3 concentrations, despite the fact that the tunnel fans in the houses forced airflow toward the sensor sites. Ammonia concentrations were greatest when the predominant wind direction was from the houses toward the measurement locations. Because the tunnel fans were on the eastern end of the houses, it was expected that the highest observed NH_3 concentrations would occur when the winds were blowing roughly west to east. Indeed, 90% of the observations when the NH_3 concentrations were found to be greater than 0.5 ppm at 300 ft occurred when the wind was blowing toward

a compass direction of 190 to 300° (Figure 7). Similar results were found 200 ft from the tunnel fans (92%). The effect wind direction had on downstream NH_3 concentrations was most notable at distances greater than 100 ft downstream from the tunnel fans. The reduced influence of wind direction at the 100-ft OPL location was due to a low but measurable wind velocity produced by the tunnel fans at the 100-ft location.

It is important to note that this particular farm was selected in part because 6 of the 8 tunnel ventilation fans in the houses were located across the eastern end walls of the houses. This fan configuration created a single plume of air from each of the houses directed toward the field measurement sites. In most tunnel-ventilated poultry houses, the majority of the fans are not positioned in the end wall, but rather in the side walls in close proximity to the end walls. This side-wall fan configuration, in effect, creates 2 air masses exiting at right angles to the long axes of the poultry houses, potentially resulting in more mixing of the house air with the outside environment and creating less of an exhaust plume effect.

During the first study period, 59% of the measurements were taken when the wind was from 190 to 300° (in the direction of the measurement locations). Average NH_3 measure-

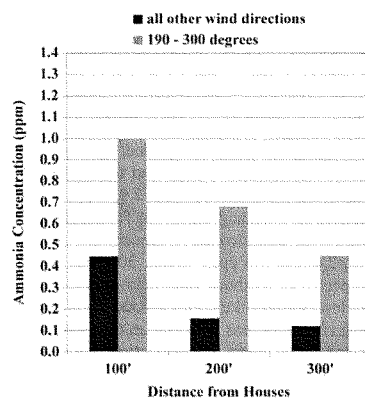


Figure 8. Average of 15-min NH_3 concentrations with respect to general wind direction for 50 to 56 d.

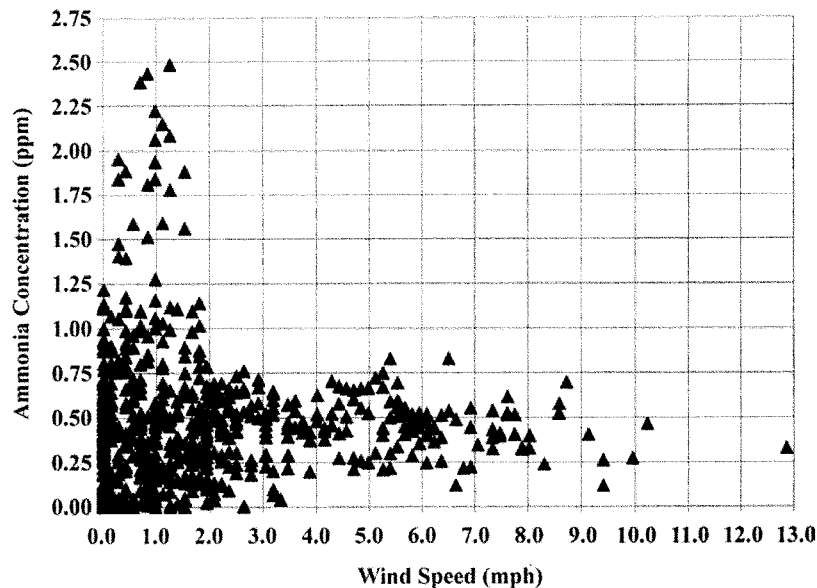


Figure 9. Ammonia concentration and wind speed at 300 ft downstream from the broiler houses.

ments were approximately twice as high at the 100-ft location when the wind was blowing in this same direction, as compared with all other directions (Figure 7). The differences increased nearly 4-fold at the 200- and 300-ft locations, suggesting a major influence of wind direction on measurement site concentrations. During the second study period, 37% of the measurements were taken when the wind was blowing between 190 and 300°. At the 100-ft location, there was nearly a 10-fold increase when the wind was blowing between 190 and 300° compared with when it was blowing from all other directions (Figure 8). The difference decreased to approximately 3-fold for the 300- and 500-ft locations, further indicating the influence of the fans on the closest measurement site compared with the effect of climate (wind speed and direction) on more distant downstream sites. It is important to note that average NH_3 concentrations at the 200-, 300-, and 500-ft locations remained well below 1 ppm in both wind direction scenarios.

Figure 9 shows the relationship between ammonia concentration and wind speed. The highest average concentrations occurred when wind speed dropped below 2 mph. This suggests that less mixing of the air is occurring as the wind speed decreases and the dispersion of the emitted NH_3 is reduced. The highest downstream NH_3 concentrations occurred at night between the hours of 5 p.m. and 7 a.m. because of stable nighttime weather conditions and low wind speeds. The diurnal variation was most clear for the 200- and 300-ft locations, where the measurement sites were less affected by the airflow produced by the tunnel fans compared with the 100-ft location. The average daytime (6 a.m. to 6 p.m.) and nighttime (6 p.m. to 6 a.m.) NH_3 concentrations for both study periods are shown in Figures 10 and 11. Nighttime NH_3 concentrations were approximately twice as high as daytime concentrations for both study periods at distances from the poultry houses of 200 ft or greater.

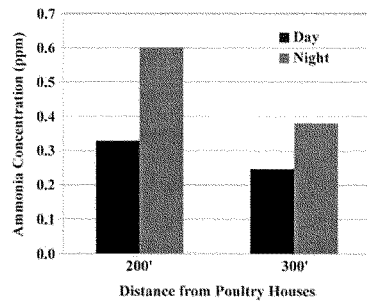


Figure 10. Average of 15-min NH_3 concentrations (day and night) at 200 and 300 ft downstream for 28 to 49 d.

Over the course of the 4-wk study with near-market-age birds, the maximum 15-min average downstream NH_3 concentrations during the observation periods at distances 100 ft or greater from the poultry houses were detected as greater than 2 ppm for only short periods of time (first study period, 4 h at the 100-ft location, 2 h at the 200-ft location, and 1 h at the 300-ft location; second study period, 1 h at the 100 ft location and less at the 200-ft and more distant locations). These concentrations reflect the effect of climate on downwind dispersion and are concentrations that are less than the EPA detectable odor threshold range of 5 to 50 ppm [12]. Average NH_3 concentrations for both study

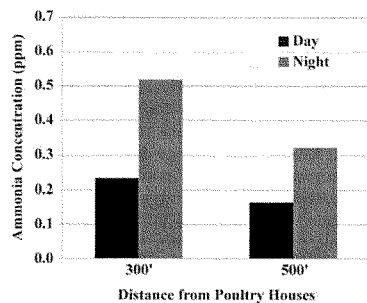


Figure 11. Average hourly NH_3 concentrations at 300 and 500 ft downstream for 50 to 56 d.

periods at distances of 200 ft or greater were less than 1 ppm. Ammonia concentrations were 1 ppm or less for approximately 85, 90, and 95% of the measurements made at 200, 300, and 500 ft downstream, respectively. Peak downstream NH_3 concentrations occurred when wind speeds were less than 2 mph. The highest downstream NH_3 concentrations occurred between the hours of 6 p.m. and 6 a.m., which are typically associated with low wind speeds and thermally stable weather conditions.

CONCLUSIONS AND APPLICATIONS

1. Ammonia concentrations decreased rapidly in the first 300 ft downstream from the broiler house.
2. Wind direction and wind speed had a large influence on NH_3 concentrations downstream from poultry houses.
3. Although 1 farm and 1 flock were all that were monitored during this study, these data provide the first measurements of NH_3 concentrations downwind from poultry houses. More work is needed on this topic in the future to examine the impact that housing design and other farm management practices might have on NH_3 concentrations outside poultry houses.

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Senator CARPER. Mr. Kuhn.

Mr. KUHN. Yes. Thank you, Senator Carper. The results of documented research in Iowa are different than what Mr. Satterfield has described. Really, when the manure that is contained in one of these buildings is agitated and applied to the land, there is about 1 million—

Senator CARPER. You are talking about poultry or one of the hog—

Mr. KUHN. This is the hog CAFO like this.

Senator CARPER. Yes, I understand.

Mr. KUHN. There is about 1 million gallons of liquid manure underneath that building.

Senator CARPER. One million gallons?

Mr. KUHN. One million gallons. And numerous Iowa farmers have lost their lives due to high level of toxic gases. They really emit four different types of toxic gas: one, ammonia, which is constantly there; carbon dioxide; hydrogen sulfide; and methane. We have had numerous instances where farmers have gone in to repair something in the bottom of the pit, they have been asphyxiated; their son goes in to get them, they are asphyxiated. This is very sad, but true.

It should come as no surprise that when thousands of animals are confined in a building directly on top of all the manure they produce, it is going to stink. The farmer will tell you it is the smell of money, but the neighbor would say it stinks to high heaven.

If the pharmaceutical plant in my hometown has a release of a toxic chemical, they are required to notify local, State, and national officials. Why should it be any different for corporate factory farms? We want all of our corporate citizens to be good stewards of our precious natural environment.

Senator CARPER. Thank you very, very much.

And I want to again thank Senator Booker for letting me go ahead of him. Thanks so much.

Senator ROUNDS. Thank you, sir.

Senator Fischer.

Senator FISCHER. Thank you, Mr. Chairman.

Mr. Satterfield, it is my understanding that there is a regulatory framework already in place for producers to comply with environmental rules and laws at both the State and the Federal level. In your experience, would including the additional reporting requirement under CERCLA result in any environmental benefit?

Mr. SATTERFIELD. Senator Fischer, I don't believe so. This is a law dealing with emergency responses; it is not a law to measure emissions, to quantify and aggregate emissions, to then make policy decisions on whether additional regulations are needed because those levels may meet a certain threshold. So I don't see any environmental benefit or human health benefit, at least from the chicken industry perspective, and that is all I can speak from, from keeping the requirement that farmers have to report.

With our chicken farms, the families live on the farm; they are family owned farms. They live there, their children live there, and it is not a corporate operation. It may be with hogs in Iowa, I don't know, but for us, the families live there. And if conditions were

that bad, they would do other things to keep those ammonia levels low and inside the houses.

Senator FISCHER. Thank you.

Mr. Mortenson, you stated in your testimony that complying with this reporting requirement is a multi-step process, and it takes 1 year to comply. This is followed by additional reporting any time you add cattle to your operation.

I am a cattle rancher from Nebraska, and I understand the problems that ranchers are going to face, given that moving cattle between pastures under a plan of grazing system that we have could trigger additional reporting, among other problems, with the compliance, so this just sounds like a bad deal, and it is applying a law to agriculture that was never designed to be applied to production agriculture.

When the court issues its mandate on May 1st, walk me through the process that you are going to have to go through to comply with this new law.

Mr. MORTENSON. Thank you for the question, Senator Fischer. The first step is reporting to the National Response Center through the Coast Guard. And after that you have 30 days to send your written report in to the EPA, your regional EPA office, and for me, that would be in Denver. And then after a 1 year anniversary, you have 30 days again to re-report and note any changes or anything.

Now, for me, there is no scientific basis out there to gather that material. On a pasture based system like I run, there is just nothing out there, so I am not going to be able to provide any sort of accuracy to the information that I supply.

As you said, I move the cattle around. I am in three different counties. During the spring, after they calve and are processed, the cows go to six different leases, so am I going to have to report that again? And when the cows are calving, my numbers go from one number, they just double, so what am I going to do now, do I have to report that I have baby calves on the ground?

It is just a reporting nightmare, and the EPA, on their page that you have to kind of go through, says it can take up to 10 hours to do this report in May. I don't have 10 hours to sit around and make guesstimates in May; it is just a busy time of the year for farmers and ranchers.

Senator FISCHER. Right. Do you believe that the FARM Act is going to address that cumbersome process?

Mr. MORTENSON. Yes, I do. I have great confidence in it.

Senator FISCHER. You also discussed concerns about Federal agencies having a database on farm and ranch locations, and justifiably, you note the concerns of supplying the Federal Government with personal information regarding the location of these operations, which in many cases coincides with exactly where we raise our families. Can you please explain why this is concerning for producers who can gain access to this information and what you believe the FARM Act can do to alleviate some of those concerns?

Mr. MORTENSON. I think it is very dangerous when you start putting personal information out there for the public to digest. In this case, a Superfund designation on my ranch I think would attract a lot of attention; and not only on my ranch, but all the other ranches around the country. You are giving them your location, you

are giving them the number of cattle you run, so, to me, it puts me in a very dangerous situation, I feel.

I think this FARM Act will address that; we won't have to report, so, therefore, the numbers and where the cattle are will remain, you know, as personal information.

Senator FISCHER. Thank you, sir.

Senator ROUNDS. Senator Van Hollen.

Senator VAN HOLLEN. Thank you, Mr. Chairman. Thank you and the Ranking Member and my colleagues.

And to all the witnesses who are here, appreciate your testimony. I joined with Senator Carper and a number of my colleagues on a letter to Scott Pruitt at the EPA asking them to ask the court to continue the stay while we try to figure this out. I am trying to understand all the testimony and read through a lot of material.

Mr. Mortenson, I think you make a very good point, differentiating between the concentration of certain emissions, like ammonia, versus the mass of emissions, because from a human health perspective, of course, it is the concentration that has the biggest impact on human health, and I think that is a very important point.

Mr. Satterfield, welcome, and thank you for all you do on behalf of the Eastern Shore's economy in Maryland. You drew the distinction and said that CERCLA never anticipated that the CERCLA reporting requirements would apply to "low level emissions" from these ongoing operations. What is the threshold for low level emissions, and what is beyond that?

Mr. SATTERFIELD. I do not have a numeric threshold for low level emissions versus higher level emissions. I don't have it in front of me. We can do some research and find out. But my point was that there is very little ammonia coming out of those chicken houses because there is very little ammonia in the chicken houses if the birds are being properly cared for and the house is being properly managed.

Senator VAN HOLLEN. Right. So I think those are all really good points. You drew this distinction, and from a human health perspective there is a distinction, right? So what I am trying to figure out, if we say that there is no obligation to report emissions under any circumstances, would that mean that even if there were concentrated emissions, maybe they weren't doing the job properly in one of the poultry houses, and there were emissions that were concentrated to a point that it could have an impact on human health to the neighbor? If we pass this, what duty would remain with respect to farmers and reporting on those kind of emissions?

Mr. SATTERFIELD. Well, as I tried to point out, this is an emergency response bill. Does the admission of emissions trigger the need for emergency responders such as Mr. Mortenson to come out and do something?

Senator VAN HOLLEN. Right. And I agree. And probably 99 percent of the cases would never reach that concentrated level. I think it is a really important point on the concentration. You have a big, spread out farm, you may have a lot of emissions, but they are not concentrated enough to have impact on human health.

My question is, if you remove this requirement, in the event there was something that was not a low level emission, that was

a high level concentrated emission, if we get rid of this entirely, is there any duty to report?

And my understanding is, if you get rid of it entirely, there is no duty to report something that we might all agree could have an impact on human health. So I am just trying to understand this provision, and you had used that term, and I have seen it used before, low level emissions, so then the question is if there was not an intent to apply this to low level emissions, does that mean there was an intent to apply it to high level, concentrated emissions.

Mr. SATTERFIELD. I just cannot imagine from a chicken house there would be an escape of ammonia that would endanger the community.

Senator VAN HOLLEN. OK. And I defer to your expertise on that.

Mr. Kuhn, I don't know if, in your experience with some of the other concentrated feed lots, non-poultry, pork, whatever, in your experience, have there ever been emissions that would trigger a requirement to protect human health?

Mr. KUHN. Most certainly there have been.

Senator VAN HOLLEN. Outside the boundary of the operation. Because testimony on OSHA regulations is interesting testimony. With respect to impact on human health outside the perimeter of a farming operation.

Mr. KUHN. In my earlier remarks I referenced attempts to establish regulations and thresholds for hydrogen sulfide and ammonia. The DNR did extensive testing over a period of years to determine at the property line or at the separated distance, that means at the place of the residence, were there direct, verifiable emissions of odors that affect human health, and they found there were.

In Iowa, 1,000 animal units is equal to 1,000 live cattle. Unlike Mr. Mortenson, in Iowa they are built in confined feeding operations, 1,000 cattle, and certainly in some cases there are emissions that would threaten public health at the property line.

Senator VAN HOLLEN. Mr. Chairman, if I could just ask one more, because the CRS report that I believe the Ranking Member asked to be put in the record has not yet arrived at the Committee, is that correct?

Senator ROUNDS. That would be correct.

Senator VAN HOLLEN. OK. And I understand one of the questions here is whether or not this legislation also eliminates the requirements to report under Community Right-to-Know. And I received a document, I believe from the Ranking Member, who is a co-sponsor of the bill, that indicates that under the legislation, under Senator Fischer's legislation, that the reporting requirements under the Community Right-to-Know Act would remain in place under this legislation with respect to large farms and medium farms. It says those would still be required. And maybe this is a question Senator Fischer and I can talk about later.

But Mr. Satterfield, what is your understanding of the impact of this legislation under the Community Right-to-Know requirements?

Mr. SATTERFIELD. It is my understanding, Senator Van Hollen, that the FARM Act does absolutely nothing to the Community Right-to-Know Act.

Senator VAN HOLLEN. OK.

Mr. SATTERFIELD. It just deals with CERCLA.

Senator VAN HOLLEN. And the last comment I will make, Mr. Chairman, because I really am trying to figure this out with you, is in the decision, in the court decision, the judge said, in the final rule, that cutting back on CERCLA reporting requirements had the automatic effect of cutting back on Community Right-to-Know reporting and disclosure requirements. Is there something I am missing here, that is it an automatic flow through? In other words, it doesn't touch that statute, but the Community Right-to-Know statute is directly linked with the CERCLA statute in terms of triggering reporting requirements?

Mr. SATTERFIELD. My understanding is that, under CERCLA, the reports go to the National Response Center operated by the Coast Guard, and then 30 days later a written report to the regional EPA office. Under the EPCRA, the Community Right-to-Know, it is my understanding that those reports go to the local and State emergency responders, not necessarily to the Federal people. So there are two different reporting systems, two different purposes.

Senator VAN HOLLEN. And they are totally independent, so this legislation, while it may impact CERCLA requirements, would not impact the Community Right-to-Know requirement?

Mr. SATTERFIELD. That is my understanding, sir.

Senator VAN HOLLEN. Thank you.

Thank you, Mr. Chairman.

Senator ROUNDS. All right.

Senator BOOZMAN.

Senator BOOZMAN. Thank you, Mr. Chairman, and thank you all very much for being here.

Mr. Mortenson, something that is problematic about the new reporting requirement is that it likely affects over 200,000 agriculture producers across the country. Traditionally, as we have talked about, EPA regulates the large concentrated animal feeding operations, but the court decision goes way beyond that. We are talking about feed lots, cow calf producers, stockers, poultry, et cetera, et cetera. There doesn't seem to be a limit on who is impacted by the new requirements.

Tell me what your buddies are thinking, in the sense of can they comply with this? What is their concern? You know, again, the solution to these problems need to come from the ground up, rather than a judge or somebody that has never been on a farm making some very, very important decisions. Tell me about your buddies.

Mr. MORTENSON. Thank you, Senator Boozman, for the question. For the most part, the people that I have talked to, my neighbors, don't have any idea that this is even coming, so if nothing is done by Congress, on the first of May a big surprise is coming to them, and they are not going to be happy, to say the least, to be labeled as polluters, when all they are doing is the same agriculture that has been going on in this country for hundreds of years, grazing cattle.

There are a lot more people who will be regulated under this that have no contact with the government. Not everybody signs up for a government program. There are a lot of people up there that step away from them just so they can keep their private business private. So now you are going to net those people that don't have any

contact with the government as far as regulations, and I don't think that is the intention.

Senator BOOZMAN. Right.

Mr. MORTENSON. And again I will go back to the anger issue. When people learn, when this gets out in the country widespread, everybody understands what is going to be required. We went through the animal ID thing a few years ago when you saw the anger there. I think this will be 10 times worse, because basically it gives the government the same kind of information that the animal ID was going to give, and the anger in the country will be tremendous.

Senator BOOZMAN. Very good.

Mr. Satterfield, Arkansas produces a lot of chickens, a lot of poultry, much like the Delmarva Peninsula; we have that in common. Again, we talked about this, but tell me, tell the Committee how poultry growers keep their ammonia levels low. I know that, again, my experience has been that these are not huge, corporate owned entities, these are family farms that people work in, young people are out there working in and participating. Tell me how you strive to do that.

Mr. SATTERFIELD. Thank you, sir.

Senator BOOZMAN. And tell me about the success in striving, what you are accomplishing.

Mr. SATTERFIELD. These are family owned farms on the Delmarva Peninsula who have contracts with the chicken companies, and the chicken companies have certain animal welfare standards, and the grower's primary job is to make sure the conditions in those chicken houses are good for the birds; one, because it is the right thing to do and because if there are problems because of high ammonia levels, that is not good for the animal. That does not allow the bird to grow to its full potential, and that cuts into the income of the families.

So keeping moisture levels low in the houses is important because moisture is necessary in the creation of ammonia. About 20 years ago, the watering systems in these chicken houses—and the birds are raised on the floor, they are not in cages—the watering systems changed from open troughs or open pans to a nipple drinker system kind of like a water fountain. The bird pecks at it, the drop comes down, so you have less water going onto the litter, less potential for human conditions, less potential for the development of ammonia. So that has been an important poultry health step.

The USDA provides cost share money for acidic products to go in the chicken houses on the bedding material, when the birds are not in there, to reduce the pH, which will nullify the creation of ammonia, so that is important.

The feed conversion I mentioned, the more of the feed that goes into the creation of meat, less nitrogen is coming out the rear end of the bird, less opportunity for ammonia to be created.

So those are the big ones. And then we have our buffers program to capture the emissions once they come out of the chicken houses in low levels. Remember, the birds are down here on the floor; a human being up here. If he is smelling a lot of ammonia, imagine what the little chick is smelling. If there is too much ammonia, it impairs the quality of the bird and the quality of the paws, the feet

of the birds, which are a very valuable export product. So high ammonia levels reduce the quality of the product that the companies want to sell, so everybody has an interest in keeping those ammonia levels down.

Senator BOOZMAN. So the reality is, through science and technology, there has been tremendous advancement in recent years in that regard.

Thank you, Mr. Chairman, we appreciate it.

Senator ROUNDS. Thank you, Senator.

Senator Markey, I know you just pulled in. Are you prepared to ask some questions at this time?

Senator MARKEY. Yes, I am. Thank you. Thank you, Mr. Chairman, very much.

Mr. Kuhn, do you agree that high doses of emissions can pose a health hazard to workers and nearby communities?

Mr. KUHN. Certainly.

Senator MARKEY. According to the CDC, these emissions can cause "chemical burns to the respiratory tract, skin, and eyes; chronic lung disease; and even death."

Mr. Kuhn, do you agree that nearby communities should be able to find out whether they are being exposed to high quantities of these chemicals?

Mr. KUHN. Yes, I do.

Senator MARKEY. The CERCLA reporting requirements are triggered for farms that emit more than 100 pounds of ammonia or hydrogen sulfide a day. Some of these larger farms emit as much as 2,000 pounds of ammonia daily, and these are dangerous chemicals, and animal agriculture operations account for about three-quarters of our national ammonia pollution, according to the EPA. Unfortunately, the bill we are considering here would permanently keep the public from understanding where that pollution is coming from by removing reporting requirements.

Mr. Satterfield, since the D.C. Circuit Court decision last April that farms should report hazardous emissions from animal waste as directed under CERCLA, have farmers had success in working with the EPA to get clear guidance put in place to explain how to report their emissions?

Mr. SATTERFIELD. No, sir, they have not.

Senator MARKEY. And to what do you attribute that?

Mr. SATTERFIELD. Part of the problem is the difficulty in measuring emissions from chicken houses. There was a study done in 2007, the National Air Emissions Monitoring Study, to develop emission factors that would allow farmers, on their farms, to calculate it. When the data were collected, it went to the EPA Scientific Advisory Committee, which said these are not good data. We don't have a real good way to measure the emissions and to share the measurement techniques with the farmers, because the emissions depend upon the age of the bird, the breed of the bird, the age of the bedding material on the floor, whether it has been around for years or just months, the climate, the humidity.

So one size fits all does not work for every chicken house. So until EPA figures out what is the best method to give to every grower for him or her to measure emissions, there is no way that that person accurately can measure the emissions.

Senator MARKEY. So do you think that the Trump EPA should do a better job in working with farmers, collaborating with the farmers to make the reporting work for everyone, is that what you are saying? The Trump EPA is not collaborating well with the farmers?

Mr. SATTERFIELD. Well, I am not saying they are not collaborating. And I think a new study is underway. I think that was on the EPA Web site in late 2017 or early 2018, that efforts are underway to develop—

Senator MARKEY. I appreciate that. But what you are saying, right now, the farmers are left to muddle through the issues themselves, without getting the full cooperation from the Trump EPA, and they are just leaving the farmers out there on their own and in a state of confusion, almost like chickens with their heads cut off, right? They don't have a direction that they are being given by the EPA.

CERCLA actually does require the communities to have information they need to protect themselves. If industries emit dangerously high levels of hazardous chemicals, they should be reporting that under CERCLA. If we carve out a huge industry, we will cut into the safety of American families.

So, Mr. Kuhn, how would you solve this problem? What do you think the EPA should be doing here so that we can keep the standards which we have, but ensure that there is much closer collaboration going on between the Trump EPA and the farmers?

Mr. KUHN. Well, I would like to mention that the ability already exists to measure hydrogen sulfide, ammonia, and even odor. After the passage of the legislation in 2004, the DNR was required to do studies on emissions of hydrogen sulfide and ammonia. They are trained in doing that. Inspectors were even taught about scentometers, where they could determine on a regular basis the odor that is emitted from these.

So I am a little concerned that we talk about technology at one time, and then we say we don't have the ability to test it. Certainly, we do. So I just don't believe that—I am not really trusting the EPA when they promulgate the guidance on their new rule that would eliminate this. There needs to be it somewhere, and it is not coming from the State, and it is not coming from CERCLA. It is not going to come from EPCRA. Who is going to provide it? People like the Schwartzkopfs are still suffering.

Senator MARKEY. I agree with you, and I think the EPA should just, in the words of Bill Belichick, do their job, get it done, cooperate, send clear guidance, and I think we would be in a much better position.

So I thank you, Mr. Chairman; I thank the Ranking Member.

Senator ROUNDS. Thank you.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

Let me apologize to the Committee here. I have been chairing the Armed Services Committee, and I fear that what I am going to ask has already been covered, but it hasn't been covered to me yet, so if there is a little redundancy here, I do apologize for that.

The FARM Act, I am a cosponsor of that, it exempts the registered pesticide products in air emissions from animal waste from

reporting requirements. In December the EPA published a final rule to exempt all farms from reporting these. The rule was struck down last April by the U.S. Court of Appeals, the D.C. Circuit.

This would be to Mr. Mortenson. In your testimony you say that the biggest challenges in your industry are urban encroachment, natural disasters, and government overreach. I know a little bit about that, the lengths of government, what they can do and control every aspect of American life. I spent a number of years chairing this Committee, and we lived through that.

I find it interesting that the last Administration agreed that these reporting requirements weren't needed or wanted by agencies tasked with responding to emergency situations. Yet, the environmentalists sued, and you have to wonder why, as you stated in your written testimony, there is no environmental benefit, but it seems there is a lot of very specific information that is required in reporting these emissions.

So I would ask you, is there concern among your community, the farmers and ranchers, about how this information could be used to someone's disadvantage if it were in the wrong hands?

Mr. MORTENSON. Thank you for the question, Senator Inhofe. Yes, there is. We are quite proud of our environmental record not only on the ranch, but as a State. We have done a very good job of keeping the waters——

Senator INHOFE. That is interesting you start off with that, because that is so obvious. The ones who are really concerned are the ones who own the land, and yet there is this idea that Government has to come in and tell you how to make your land look right and farm right.

But go ahead.

Mr. MORTENSON. Absolutely. One thing I would like to mention, our ranch was one of four that was featured in a Smithsonian exhibit called Legacy of the Land, and it ran for 6 months, and then it was taken by the Library Association throughout the country on a 4 year tour. So, you know, we are trying to do the right thing by the environment. It is very important to us; we make our living off it.

So the problem I see coming is that people don't know this thing is coming; a lot of them are unaware of it. And on May 1st it is going to hit the fan, you know, the manure is literally going to hit the fan, because they then have 30 days to report, and where is the information? Where do I get information on pasture based livestock to make any kind of judgment on how much ammonia or hydrogen sulfide my cattle are producing, and how does that change over the seasons?

I talked about the dung beetle earlier. They are burying that cow pat within an hour of it hitting the ground. In the wintertime, obviously, they are not, but there is so much science that is lacking here that there is no way I can make accurate report, and if you get junk in, you get junk out.

Senator INHOFE. Yes. I am very familiar with your area; I spent some time with the Chairman there. There is a lot of beauty there, and I was not aware that you were singled out and honored in such a way, and I am very proud of you.

Mr. Satterfield, your testimony addresses the fact that information that would be reported is viewed by the EPA as essentially useless. I know the Coast Guard shares this view. Yet your industry and the rest of the ag community will be charged with reporting these largely unknown and low level emissions.

Is there concern among the industries as to the ability or inability to report this information accurately and the potential legal liability that they would be exposed to if they don't?

Mr. SATTERFIELD. The method does not exist to give chicken growers the formula on how to measure emissions from their houses. EPA, as I mentioned to Senator Markey, put on its Web site it is in the process of trying to figure this out again. There was an effort a dozen years ago or more, millions of dollars spent to try to figure this out, and it couldn't be figured out.

So EPA, according to its Web site a few months ago, is going to try again, and then—and only then—will the growers, the chicken growers, the family farmers have the tools they need to figure out what their emissions are.

One of the concerns we have is that a lower threshold is to be reported based on the EPA current guidance, an upper threshold, and then a yearly total. Well, the activists often take the numbers that best suit their purpose, which would be the upper threshold, and say that is it, for every chicken house, for 365 days a year, we have a huge problem out there, when in fact, when a little itty bitty chick in a house of them, 25,000 to 30,000 birds, is not producing the upper threshold, which is at the maximum time coming out of the houses.

There are times between flocks there is no ammonia being sent out of the houses. So that is a concern, that the numbers are going to be turned by the critics of the animal agricultural industry to suit their purposes.

Senator INHOFE. And they seem to be in charge, too, quite often.

Let me just end on a positive note. Mr. Mortenson, you are probably familiar with the partnership program. We did this program, it was back during the Obama administration, and they came out and they inspected, at our request, in fact, I made this a requirement, to get confirmation that they make at least two trips to my State of Oklahoma and really spend some time on the farms and the ranches.

They came up with the conclusion that they are the ones who are really concerned about their own land, about the environment. I thought that was a great discovery, because that kind of broke the ice for the first time in my memory that Government doesn't know as much about your land as you do.

Mr. MORTENSON. Absolutely. We hosted the regional—

Senator INHOFE. Was that Fish and Wildlife you hosted?

Mr. MORTENSON. No, it was the EPA Administrator out of Denver, and I can't remember what her name is.

Senator INHOFE. Oh, OK.

Mr. MORTENSON. Very fine lady. But we gave her a tour of the ranch, and she was really taken aback by what is going on on the land, and the care that we not only give livestock, but the land and the water, and our concern for the health of it all, how it all works

together as a system, and if part of it isn't healthy, none of it is healthy.

So it is very important to us, and I speak for myself, and I think, the industry as a whole, that the environmentalist part of it is the most important part. We are trying to do the right thing, and I believe we are.

Senator INHOFE. I believe you are, too.

Mr. Chairman, pardon the interruption, Senator Booker. Thank you for your tolerance.

Senator ROUNDS. Thank you, Senator Inhofe.

Senator Booker, I think you have outlasted everybody else on your side. I think it is your turn.

Senator BOOKER. I appreciate that, sir, and again, thank you very much for this hearing.

Mr. Kuhn, could we just go real quick and just give a general answer of do you support this bill, S. 2421, and why or why not?

Mr. KUHN. No, I do not, as it is currently written. I think it is a step backward. People like the Schwartzkopfs and thousands of neighbors like them in Iowa have waited a long time. I explained the process through which the State of Iowa went, when they attempted to establish meaningful air emission standards for Iowa, and that failed.

I understand that the U.S. Coast Guard might not be the best place for this type of information to be presented, but for the Schwartzkopfs and other families like them, they want it somewhere, and they are not getting the answers they need now.

Neighbors do have the right and the need to know. When the manure is spread on the fields—I mentioned about a million gallons from a typical tank—it can be spread immediately adjacent to a neighbor's residence or their private drinking water well, and the CAFO operator is given up to 24 hours to incorporate it into the soil.

During that time, the smell from literally hundreds of thousands of gallons of liquid manure can be overwhelming, and both the State representative and county supervisor have been called many times by my constituents, who have no place to turn but leave their homes.

Second, neighbors also need to know everything they can about dangerous air emissions so they can provide that data to their doctor when explaining the symptoms that affect their personal health. Hydrogen sulfide and ammonia emissions can have serious short and long term consequences. Neighbors need to be able to document that exposure so they can receive proper treatment for their conditions. The conditions that the Schwartzkopf family suffers from are real.

And finally, as I stated in my written remarks, there is a real reason why eliminating dangerous air emissions would be detrimental to a neighbor. Last year, Governor Terry Branstad signed a law that limits damages that can be awarded to a person who wins a lawsuit against a CAFO. The new law requires "objectively documented medical evidence and proven to be caused by the facility." That terminology would eliminate studies and research done by universities and rely on actually documented research that the neighbors have to find for themselves. If reporting requirements

under CERCLA and EPCRA are eliminated, good neighbors like the Schwartzkopfs will not be able to access information, and therefore, denied any chance for justice in Iowa against the powerful CAFO industry.

Senator BOOKER. And I think it is important the trends. New Jersey actually has a lot of farms. We actually are the Garden State and produce a lot of this nation's produce. But there is a trend going through farming in America, which is small and mid-sized farms are getting fewer and far between, and these massive operations, massive agribusinesses are coming about. You are seeing that in the poultry industry and the pork industry.

As you said, some of these massive companies are not even American companies, like Smithfield, which is a Chinese owned company; and these concentrations mean the imagery I grew up with of farming and the farmers that I know a lot of in New Jersey, which are small farmers and not producing the kind of waste that we are talking about, but these massive agribusinesses do create these hazards.

And the expansion you talked about in your earlier remarks of what is happening in Iowa, one thing you didn't mention on the record, as we look out the front yard of the Schwartzkopfs, the CAFO there has the right to expand; they could literally put another CAFO. As we see the pork industry growing in the State of Iowa, this expansion could have even a bigger deleterious effect on average Iowans, correct?

Mr. KUHN. Yes, it does. This particular CAFO did not require what is called a master matrix application because it falls one pig short of 1,000 animal units, and typically the industry builds them at that level so they don't have to go through this county process.

But when they expand, as this site did attempt to expand, they have to go through the county for a hearing, and the county goes out, and it is actually the responsibility of the Board of Supervisors to ensure that that application meets all separation distances and passes a minimum threshold, sort of a pass-fail test.

Well, in this case, when the operator decided to expand his CAFO, he was required to come before the county board, and at that time, according to the laws of the State of Iowa, another site closer to this one was approved; and the only reason it is not in this picture is because the operator failed to start construction within 1 year. If they did, we could have seen another CAFO, which would have been about 1,878 feet from the bedroom window of the Schwartzkopfs.

So that is the problem we have. The owners of the CAFO don't live near it; the owners of the pigs don't live near it. But the Schwartzkopfs and the rural residents do.

Senator BOOKER. Well, I don't know if this is real or not, that you introduced legislation in the Iowa legislature that would have said that people who own CAFOs have to live near them. Probably would have solved the problem real quick if that became the issue.

I just want to finish, because I have a lot of respect for Mr. Mortenson and the industry that you are in, the cattle industry. In New Jersey it is a common saying to say someone is all hat and no cattle, but sir, you are hat and cattle, and I have a lot of respect for that.

In my opening statement, I agree, I said, I hope you heard, that pasture based ranchers like you should not have to do this kind of emissions reporting; it really, to me, as you said, it borders on the absurd or crossed over into the border of the absurd. But there is a fundamental difference between the type of livestock raising that you do and what goes on in these large CAFOs with huge manure lagoons where numerous people have died.

And I want to put into the record, I only grabbed one article of the death as a result of these CAFOs. If I may put that into the record.

Senator ROUNDS. Without objection.

[The referenced information was not received at time of print.]

Senator BOOKER. As a direct result of emissions. But you know that there is a fundamental difference between what Mr. Kuhn is talking about and the kind of animal agriculture that you do, sir.

Mr. MORTENSON. Yes, I do. I understand the difference. And I am not an expert on that end of it, the CAFOs; I have no experience with them. I am just here to tell you about a ranch in Stanley County that is scared to death of this thing.

Senator BOOKER. And I respect that.

And I want to say for the record that the Chairman has not invited me to come out and visit your county. I hope he does. I try to pull him to Jersey all the time.

But your testimony says that there are no large CAFOs in your county, and I respect that, but someone in another State, who lives just a couple thousand feet from a huge CAFO, whose health and whose children's health are having to deal with the stench, have to deal with not being able to put clothing on the line, have to deal without having to open their windows.

You can understand why someone living next to that would be begging for the help of the government. And governments were established in this nation, if you read our founding documents, for the protection of the citizenry. You can understand why folks would be appealing to the government to please do something about the health and safety risks that they are experiencing as a result of these CAFOs, is that correct?

Mr. MORTENSON. Yes, I can understand that.

Senator BOOKER. Thank you, sir.

And the last point I want to make is that reasonable regulations—as a former mayor, I had to cut through so much unreasonable regulations to deal with trying to get things done and help people get jobs, and economic opportunity is so important.

But what we see often here, and I see this in the river in Newark, New Jersey, is often what businesses do is they externalize their costs onto other people, and they internalize their profits. That is not the free market; that is finding ways to do shortcuts that are hurting Americans. It is perverting capitalism and the free market by pushing costs out to the commons and internalizing profits. The river in Newark, New Jersey, is polluted because of the bad practices of businesses. Large corporations, through a type of corporate villainy or theft from the future, did that.

Right now, I talked to the head of the EPA in our hearing that the Illinois River is being polluted by a lot of the waste of animals that have been pouring into those rivers.

So I am just hoping, Mr. Chairman, that we can find a balance, or I should really say to rebalance the scales to get rid of unneeded regulations on the people and ranchers, but to make sure that families, now a growing number of American families, as these CAFOs, as you said, in Iowa, are becoming more prevalent in our society as folks like the Chinese are finding very creative ways to outsource their pollution onto Americans and import the finished product into their countries, that we find a way to rebalance the scales for health and safety for suffering families suffering from respiratory diseases, cancers, and the like, and to undo the undue regulations that are ranchers like Mr. Mortenson. I believe we can find that balance, but I think we still have work to do.

Thank you, sir.

Senator ROUNDS. Thank you, Senator Booker.

I think, just to wrap this up, first of all, the idea behind the Subcommittee is to really be able to get in to look at the issues, learn a little bit more about the legislation involved, and to recognize that sometimes, as Mr. Kuhn has brought out there, there are issues that many cases your local units of government, as a mayor would understand, as a State legislator would understand; I am a former State legislator, that the question in many cases is where do you best address some of the issues, where is the best place to go.

One size does not fit all. We have different sizes here, different types of activities, all of which are trying to be addressed by one single piece of legislation.

I think what we have learned today is, No. 1, there is a need to address the challenges that are found within the legislation or found within the rulemaking processes of the EPA today. The second part is that there is room for not just Federal, but also State and local zoning, and rulemaking to be involved in this as well.

I have appreciated what all three of you have had to offer to this process today. The legislation before us is, in my opinion, a very good attempt to try to fix what is an impending disaster for a lot of small farms across this entire country. At the same time, we recognize the need to try to address the concerns of all of our citizens across the country as well.

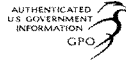
So I want to thank Senator Booker for his participation in this, as well as the rest of our Committee members. I would really like to thank all of our witnesses today for their testimony; you have all provided valuable information to us as we move forward.

So, at this time, I would once again say that the record for this Subcommittee will be open for 2 weeks, and that would bring us until Thursday, March 22nd.

With that, this hearing is adjourned.

[Whereupon, at 11:50 a.m. the Subcommittee was adjourned.]

[Additional material submitted for the record follows:]



II

115TH CONGRESS
2D SESSION

S. 2421

To amend the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 to provide an exemption from certain notice requirements and penalties for releases of hazardous substances from animal waste at farms.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 13, 2018

Mrs. FISCHER (for herself, Mr. DONNELLY, Mr. BARRASSO, Mr. ROUNDS, Mr. ROBERTS, Ms. HEITKAMP, Mr. COONS, Mr. CARPER, Ms. DUCKWORTH, Mr. ISAKSON, Mr. WARNER, Mrs. ERNST, Mrs. MCCASKILL, Mr. INHOFE, Mr. MANCHIN, Mr. MORAN, Ms. KLOBUCHAR, Mr. WICKER, Ms. SMITH, Mr. HOEVEN, Mr. CASEY, and Mr. BENNET) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To amend the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 to provide an exemption from certain notice requirements and penalties for releases of hazardous substances from animal waste at farms.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 SECTION 1. SHORT TITLE.

4 This Act may be cited as the “Fair Agricultural Re-
5 porting Method Act” or the “FARM Act”.

1 **SEC. 2. EXEMPTIONS FROM CERTAIN NOTICE REQUIRE-**
 2 **MENTS AND PENALTIES.**

3 Section 103 of the Comprehensive Environmental Re-
 4 sponse, Compensation, and Liability Act of 1980 (42
 5 U.S.C. 9603) is amended by striking subsection (e) and
 6 inserting the following:

7 “(e) APPLICABILITY TO REGISTERED PESTICIDE
 8 PRODUCTS AND AIR EMISSIONS FROM ANIMAL WASTE AT
 9 FARMS.—

10 “(1) IN GENERAL.—This section shall not apply
 11 to—

12 “(A) the application of a pesticide product
 13 registered under the Federal Insecticide, Fun-
 14 gicide, and Rodenticide Act (7 U.S.C. 136 et
 15 seq.) or the handling and storage of such a pes-
 16 ticide product by an agricultural producer; or

17 “(B) air emissions from animal waste (in-
 18 cluding decomposing animal waste) at a farm.

19 “(2) DEFINITIONS.—In this subsection:

20 “(A) ANIMAL WASTE.—

21 “(i) IN GENERAL.—The term ‘animal
 22 waste’ means feces, urine, or other excre-
 23 ment, digestive emission, urea, or similar
 24 substances emitted by animals (including
 25 any form of livestock, poultry, or fish).

1 “(ii) INCLUSIONS.—The term ‘animal
2 waste’ includes animal waste that is mixed
3 or commingled with bedding, compost,
4 feed, soil, or any other material typically
5 found with such waste.

6 “(B) FARM.—The term ‘farm’ means a
7 site or area (including associated structures)
8 that—

9 “(i) is used for—

10 “(I) the production of a crop; or

11 “(II) the raising or selling of ani-
12 mals (including any form of livestock,
13 poultry, or fish); and

14 “(ii) under normal conditions, pro-
15 duces during a farm year any agricultural
16 products with a total value equal to not
17 less than \$1,000.”.

18 **SEC. 3. APPLICATION.**

19 Nothing in this Act or an amendment made by this
20 Act affects, or supersedes or modifies the responsibility
21 or authority of any Federal official or employee to comply
22 with or enforce, any requirement under the Comprehensive
23 Environmental Response, Compensation, and Liability Act
24 of 1980 (42 U.S.C. 9601 et seq.), other than the haz-
25 ardous substance notification requirements under section

1 103 of that Act (42 U.S.C. 9603) with respect to air emis-
2 sions from animal waste at farms.

○

March 7, 2018

The Honorable John A. Barrasso
Chairman
Environment and Public Works Committee
United States Senate
307 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Thomas R. Carper
Ranking Member
Environment and Public Works Committee
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Mike Rounds
Chairman
Environment and Public Works Committee,
Subcommittee on Superfund, Waste
Management and Regulatory Oversight
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510-6175

The Honorable Cory Booker
Ranking Member
Environment and Public Works Committee,
Subcommittee on Superfund, Waste
Management and Regulatory Oversight
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510-6175

RE: Opposition to S.2421, the "Fair Agricultural Reporting Method Act."

Chairman Barrasso, Ranking Member Carper, Chairman Rounds, Ranking Member Booker, and members of the Environment and Public Works Committee:

In light of the March 8, 2018 hearing in the Senate Environment and Public Works, Subcommittee on Superfund, Waste Management, and Regulatory Oversight, the following comments were submitted in opposition to S.2421, the so-called, "Fair Agricultural Reporting Method Act." These individuals and organizations represent rural community members, farmers, and other constituents who strongly believe that:

- Americans have a right to know about hazardous substances emitted near their homes and workplaces—no matter what the source.
- Instead of protecting rural communities from toxic chemical releases, S.2421 would exempt all concentrated animal feeding operations ("CAFOs") from reporting their emissions of hazardous substances into the air like ammonia and hydrogen sulfide.
- Hydrogen sulfide is hydrogen sulfide whether from an industrial power plant or an industrial concentrated animal feeding operation ("CAFO").
- There is no reason that people should be denied information about the poisonous emissions they are exposed to simply because the emissions come from a CAFO, where hundreds or thousands of animals are confined for long periods in facilities where their waste is concentrated and stored in high volumes, rather than being dispersed naturally across pastures.

ARKANSAS:

1. *"Yes. Drinking water is a crucial issue for the health of every person. Nitrates, phosphorus, and residues of metals and hormones, etc. in the supply from leaked CAFO waste is a real threat. Our air quality is already degraded by excess particulates and smoke from prescribed Forest Service burnings. Adding the noxious ammonia and hydrogen sulfides produced from CAFOs into the mix makes it intolerable. The smell alone should be enough to prohibit them. No one can be a good neighbor if they produce smells that stink so badly that their neighbors can't breathe the air outside their homes. In our area, a CAFO has been placed near a school and along a tributary to the Buffalo National River where primary contact could be dangerous. Asthma is a real concern. We ask that you, as our elected representative, care for your constituents and prohibit air emissions and that endanger the health of our children and our neighbors."* – **Marti and Larry Olesen**
2. *"Around 2010, the ADEQ in the State of AK, allowed a hog CAFO to be built in Newton County, near the Mt. Judea community, with a partially completed permit application and forged signatures of surrounding property owners, etc. and without proper notification to the surrounding community. 6,500 hogs, spraying waste in a mountainous, karst landscape, on the banks of Big Creek, which flows downstream about five miles into the Buffalo National River, at which point adds 10% water volume to the river. Downstream from this junction algae blooms are rampant and the smell of hog waste is terrible. Wells and springs, which these families have used as their water source for hundreds of years, are polluted; the tiny town and school are in eye-sight of and directly across Big Creek from the spray fields. It is a HORRIBLE situation. Our state department is totally responsible for allowing this and our Governor refuses to admit they should NEVER have allowed this CAFO to be built."* – **Ellen Mitchell**
3. *"The proliferation of poultry houses means that truckloads of litter are spread in our area. A large swine CAFO in the watershed of the Buffalo National River was placed within view (and smell) of a public school in Mount Judea, AR. Studies have shown that enclosed metal buildings spew toxic fumes than would kill the swine within minutes if the exhaust fans stopped working. Instead it is expelled, along with the smell, where it can impact some of the area's most vulnerable inhabitants."* – **Lin Wellford, Ozark River Stewards**
4. *"We have one in the watershed of the Buffalo National River which is threatening its viability as a public resource and driver of tourism."* – **Brian Thompson**
5. *"I live on a river where there is often fog. In the evening, the fog wraps us in moisture and traps the chicken and hog CAFO's air beneath the fog. Because people want to farm they think they can make it big with thousands of animals on little acres so Tyson, Cargill, JBS, Smithfield and other factory animal producers sign contracts that help them build their factories and buy their animals.*

The owners of these small acres with large CAFOs have little or no training on the environmental effects of these operations, they believe they have a right to farm regardless of what the definition is because the Farm Bureau or Pork Producers or others have told them they are farmers. Due to low income, lack of outside influences and poor quality of education

they are prime set up for these factory farms that are running the real farmer out of business. The lack of education makes it easy for them to blame others for what these factory farmers and industry are actually doing to real American Farmers." — **Carol Bitting**

ARIZONA:

1. *"We have petitioned ATSDR to conduct air monitoring for ammonia and hydrogen sulfide due to health concerns from these emissions from Hickman's Egg Ranches. Modeling of the releases indicates there is likely a health threat."* — **Stephen Brittle, Don't Waste AZ**
2. *"I live near a CAFO and am a prisoner of my house more often than not. There are days that the ammonia and hydrogen sulfide is so strong that the simple task of going to the car about 20 feet away from the door is enough to trigger an asthma attack. I can no longer sit on my patio or play with the dogs in the yard because of the toxic air around my house. When they are processing the manure you can see particulate matter being thrown into the air and it doesn't just settle back down, it spreads out across the valley obscuring the view of the mountains. If I cannot see through it, what is it doing to my lungs? Imagine young preschool and elementary children playing on the playground during recess located about three miles from this facility. What irreparable damage is being done to their developing lungs? They are much more susceptible.*

The public needs to know what they are exposed to and what they can do to protect themselves from these dangers. If you take away our right to know and our right to be protected, are you going to be responsible for the doctors trying to decipher their symptoms and the cause? Emissions need to be monitored, regulated and reported. Only by knowing what we are being exposed to can we take precautions and make informed choices and help the doctors find the root cause. If it was your child or family being harmed wouldn't you want to know or would you prefer that the offenders hide behind dangerous rulings? Think about that, vote with your heart and conscience. We have a right to equal protection under the law. We are important and we matter. Our lives matter more than allowing these farm factories to continue unchecked. They have the right to farm, not the right to harm! Please vote no to S. 2421, DO THE RIGHT THING!" — **Lorna Proper**

3. *"When Hickman's Family Egg Farms are done there will be 8 million hens in one farm and 8 million hens in another, about 16 miles apart. We have feathers blown about in the desert, and ammonia, dander, and hydrogen sulfide in the air that we breath. Our complaints fall on deaf ears as Clint Hickman, VP of Sales for the family business, is also our county District 5 Representative."* — **Kelly Reed, VP, Tonopah Valley Community Council**
4. *"It is next to impossible to go to the Post Office without gagging. The smell is horrible; plus, when you add the flies, it's next to impossible to sit out at any time because you are buzzed constantly. My wife and I have to take allergy medicine so that our eyes won't water and to prevent our noses from running. There is constant truck traffic, hauling chicken waste on our roads leaving a smell in the air.*

If this law passes the rural community will be without any recourse to stop this abuse being down by land owners who don't live in the city. Hickman's Egg Factory officers should be

jailed for lying to the public and residents of Tonopah. The worst part is that part owner, Clint Hickman, is on the Board of Supervisors and he's recused himself from helping out the area that he's responsible for. This is a double standard and illegal. Don't pass this bill as it will kill the rural community." – **Lloyd Rogers, STOPP Tonopah**

5. *"Where are the honest, caring representatives? The ones we elected to speak and vote on our behalf? It's very important to monitor and control emissions from mass feeding farms. There are schools between the egg farm and my home. If the air is bad enough here to cause nonstop scratchy throat, runny noses and coughs, then what about all our children and teachers? Don't let big business get away with more cost cutting at the expense of innocents."* – **Elaine Kotzyba-Morgan**
6. *"Huge Chick Ranch's is built close to and near communities through manipulation of county officials. Huge lobbying efforts have degraded rural communities in the most populous county in AZ, and the effects are affecting communities to the North East as the prevailing winds for the area are from the South West."*
– **Robert Samson**
7. *"Our rural community is suffering from a commercial chicken raising operation that is fouling the air and polluting the ground with waste and chicken feathers. It is within 1/4 mile of our small town and tourist area."* – **Cynthia Bradley**
8. *"An egg CAFO has developed two miles from my ranch and is producing dander and ammonia in the air; the groundwater may be affected."* – **Timothy Avilla, Goat Ranch**

DELAWARE:

1. *"There are many chicken raising farms in my area of So Sussex Co. Since moving to So Sussex Co., I and other neighbors suffer increased respiratory illnesses."* – **Pamela White**

ILLINOIS:

1. *"After purchasing my retirement home and living in it for only two years, I found out that two CAFOs (18,000 hogs) were going up within 1 ¼ - 2 ¾ miles from my home! I can see the buildings from my home. Now, the air I must breathe is toxic and I don't have a right as a taxpayer to know that?! See you at the Capitol and on election day!"* – **Linda Green**
2. *"A wealthy investor tried to build an 11,000 head dairy facility within a few miles of several communities, churches, nursing homes, schools, and a state park. According to state water experts, the 200,000,000 gallons of manure produced annually would destroy our water supply, while the ammonia and other gases released from the 68 acres of manure lagoons would foul our air, cause acidic rain, and destroy the health and lifestyle of rural residents."* – **Matthew Alschuler, HOMES (Helping Others Maintain Environmental Standards)**
3. *"We have our 4th Swine CAFO within a 3-mile radius and they will expand into our small community in Farmersville. The hardest part is the smell and flies. You can't "plan" to go outside to mow, tend animals, or have friends and family over. The odor is crippling and when they spray the fields it is unbearable and it is best to leave your home for a few days. Then, if*

you speak out, there is the theft, destruction, of your home and property and the phone calls. It makes it difficult to breath, not just with the hog smog, but the chemicals put on by a corporate farmer. I can't sell my home, and I can't afford to leave. I don't want to be forced by our government to live like this." — **Kelly Robbins**

4. *"A CAFO is located 1/4 mile uphill from our city's water reservoir."* — **Patty Weyhrich**
5. *"We live in a community with a Federal Superfund site that has been contaminated with proven highly volatile contaminants that both federal and state (IL) enforcement programs are ineffective. Now, the IEPA, with USEPA, is allowing the suction extraction of these pollutants from the ground, and the blowing of them, untreated, into the air around the industrial/residential neighborhood. Citizens need help!"* — **Vincent Koers**
6. *"You can smell a hog barn (CAFO) for miles down wind. The manure lagoons are very hazardous, and if not managed properly, a leak can not only kill the wildlife in our streams, but poison our water. Clean drinking water is a fundamental protection all Americans deserve."* — **Catie Gregg**
7. *"A local CAFO had a manure spill. It killed 80,000 fish in Stoney Creek and the Salt Fork River; fishing has not been the same. We have kids and family members who swim and recreate on the river. Protecting our streams and rivers has more value to the community than a corporation making a quick and dirty buck."*
— **Dave Thornton, Thornton Farms**
8. *"Two CAFOs are trying to move into our area. The County in which I live has 11 CAFOs already, one not even 5 miles from my residence, which is already polluting the area next to it. Besides that, the Illinois EPA only knows of six of these CAFOs. Tell me how the IL EPA can monitor what they don't know."* — **Connie King, Bernadotte Township**
9. *"I am a very concerned citizen who lives a quarter of a mile from a 25,000 chicken CAFO. My family has directly been affected by this farm. We have had to leave our home several times because the smell was so bad. We have contacted the EPA several times. We have been told that unless we have dead fish, or unless my husband and I or children get sick there is nothing they can do. We have a 3-acre pond stocked full of fish we cannot eat due to the run off of chicken manure into our pond. The air we breathe is polluted, our pond is polluted. We deserve fresh air."* — **Tanisha Jones**
10. *"There is a CAFO above the City of Carbondale reservoir of Cedar Lake. People opposed it, but it did not change anything."* — **Carla Womack**
11. *"Our country and certainly our state and local communities need more disclosure by CAFOs about their emissions, not less. Clearly, by definition, any bill that moves to less disclosure of harmful substances is aiming to protect the polluter and not the citizens that the government was elected to serve. In response to a CAFO recently built on the edge of Cedar Lake, our city's, Carbondale's main source of drinking water, a group of concerned citizens, including a number of members of the Shawnee Sierra Club, collected comments from local farmers,*

brewery owners, and tourist industry folks who feel their livelihood is threatened by such industrial animal production facilities and their assumptions that they don't have to be accountable for the pollution that impacts the air we breathe and public's sources of water. Also on record protesting the unwanted impact of this CAFO are families that live close to it. In one case, the family members can't go outside on certain days given the strong stench and their daughter has developed a rash after having spent time outside. The government needs to take notice of the people's voice and not just of the country's polluters." — **Jane Cogie, Sierra Club Shawnee Group**

INDIANA:

1. "There is a large CAFO 3/8 miles east. We get a strong odor sometimes strong enough you can taste it, or on a calm evening when the dew sets, the hog smell comes and we have to go inside and close the windows. People living next to a CAFO are, in my opinion, considered collateral damage by the powers that be. It is something I would not wish on anyone and what really upsets me is that the odor could be reduced. Feed the world and the hell with your neighbor." — **Kevin Williams**

IOWA:

1. "Most days, even in town, we smell pig shit!" — **Cindy Capellen**
2. "Iowa counties with many CAFOs have very visible air pollution from factory farm emissions. However, no one is monitoring it — not the DNR or the EPA. I and my elderly mother had to leave our home and move to town to get away from the factory farm emissions from 1.5 million chickens and 8,000 hogs 2 miles from my home and the surrounding manure fields that were causing multiple health problems for both of us. Now, we only experience those symptoms when the wind is blowing air pollution from the areas with factory farms and manure fields. Clean air and water are prerequisites for good health. Our government needs to regulate CAFOs and require them to reduce or eliminate their toxic emissions." — **Joan Olive**
3. "Our water is polluted, along with our air. I am a rural resident of Northwest Iowa, and I am so tired of hauling bottled water home for drinking and cooking and the expense!" — **Roberta Carpenter**
4. "As a 20-year business owner in Lime Springs, Iowa, I have witnessed a rapid decline of the community since the evolution into factory farming started. What was once a great place to raise a family, operate a business, and interesting destination for people to visit has become almost desolate. Most tragically, we've lost our school. Our stores are vacant and people rarely take time to drive into town, often stating their goal is to just get through Iowa. If this continues, not only will the communities fail to entice families to move or stay here, the state will feel the impact as well provided the interests for the greater good, rather than the few are at heart." — **Jana Hartzell, Hartzell Wood Stock**
5. "After building our dream home in 1983, in rural Carroll County, Iowa, we became surrounded by more than 30,000 hogs in CAFOs, built between 1995 and 2014. The air quality was foul-smelling most days, and over the years, DNR readings of ammonia, hydrogen sulfide, and particulates had climbed to danger levels that persist to this day. After suffering from asthma-

like symptoms, and my wife with severe and persistent migraines, we eventually sold our home to the county conservation service. To this day, nearly 5 years later, we have been told that there is still no one living in that home, which is sad. If that was not enough, we now live in Adel, Iowa and now have a water quality problem with high nitrates and other pollutants. We also have an air quality problem, as does all of Iowa according to the latest DNR results. I am a regular attendee at DNR-EPC meetings and participate in the public comment session of those meetings.” – Vern Tigges

6. *“We live directly south of Rathbun Lake and get our water from RRWA. Of course we’re impacted, anyone who drinks water or breathes in this state is impacted.” – Nancy Jones, Plano City Council*
7. *“I have asthma and life-threatening allergies. I stepped outside twice in my life and couldn’t breathe, which was very frightening and I couldn’t identify the cause. My son also has allergies and childhood exercise-induced asthma.” – Maria Houser Conzemius, Iowa Citizens for Community Improvement*
8. *“Our concerns are many. Our neighborhood is known for shallow wells, 100 feet and under. Living on karst terrain, we are well aware that our abnormal water quality tests are being influenced by CAFOs in the area. We also have several people who are very concerned about the air quality – one with a lung condition, one with allergies to air pollutants in hog confinements, and numerous farmers, including Amish who spend many hours outside, unable to escape the smells. Our lists include loss of quality of life and not being able to be outside without the fear of which way the wind blows smells our way.” – Sue George, Northeast Iowans for Clean Air and Water*
9. *“We have many members across the state of Iowa who have personal impact stories related to air quality, water quality, public health impact, and loss of quality of life.” – Adam Mason, Iowa Citizens for Community Improvement*
10. *“I drove back to Northwest Iowa a couple of weeks ago, and the air stunk so heavy and full of manure that I had to cover my nose with a cloth and all I could think about was the poor people living there, especially kids that have no choice. Horrible stench!” – Sue Biederman*
11. *“I may be forced to move to keep my health. My home has already lost value and my orchard and blueberry enterprises are in jeopardy. I am the 5th generation on a Century Farm, I can prove who was here first. All the hog CAFOs in my rural neighborhood are owned by absentee land owners who care nothing about the neighbors. We are suffering from hydrogen sulfide headaches! I cannot open the windows in the house and have been driven inside many times when outside conditions are unbearable. I live on a river bottom where the stink HOVERS!” – Kim Andersen, Blueberry Bottom*

KANSAS:

1. *"KDHE, the very people who are there to protect our health, have sponsored SB 405 to change the broiler conversion rate to 0.003. This will also decrease the setback from the present 4000 feet to just 1320 feet. This bill just came out of the Agriculture and Resource committee, and if it passes, our state will become overrun with chickens and chicken manure."* – **Cecelia Pruitt**
2. *"I lived in Garden City, KS for 11 years and had respiratory issues and headaches while I lived there. When I moved to Clearwater, KS in 2009, my health improved. I am convinced that is because I am no longer exposed to emissions from CAFOs."* – **Susan Lamberson**
3. *"Kansas is under attack by our desperate state government to bring in business revenue after our now former Governor ruined our state budget with reckless tax cuts. Bringing CAFOs into our state is not the answer, and would very likely ruin our air and water quality, not to mention our pristine countryside."* – **Teresa Reichart-Vernon**

MARYLAND:

1. *"I have three children and one granddaughter. When I moved to the Eastern Shore of MD, besides the beauty of the region, I noted two disturbing facts: 1) there is an alarming amount of cancer patients – both young and old, and 2) there are so many children with asthma or respiratory diseases. While my family has no history of these diseases, my youngest daughter was prescribed an inhaler almost two years ago. Do you know what it's like to see your child struggling to breathe and not to know why? She has had five comprehensive allergy tests the last few years – all negative. My daughter and granddaughter both break out in unexplained rashes. They live in the same city, so what could it be? I believe, it's something in the air.*

The Eastern Shore region has been encroached upon by large concentrated animal feeding operations known as CAFOs. These monstrosities house 100,000 plus chickens each producing tons of ammonia and of course tons of manure. These operations each have 18 industrial fans releasing toxins into our air for our children to breathe and they are not monitored or required to be filtered. These operations are being placed dangerously close to neighborhoods and schools in spite of the large amounts of land available on the shore that is not near anyone. One CAFO was placed right across from the playground of my daughter's school! My protests went unheard, and I was labeled anti-poultry! I am not anti-poultry, farming or industry. I am a mom fighting for the future of my children, grandchildren and all others who can't fight for themselves. If the industry is truly being good neighbors, they would welcome air monitoring because there would be nothing to hide. We need your help. Please help us send the message that all lives matters. Not just chickens." – **Monica Brooks, Concerned Citizens Against Industrial CAFOs**

2. *"Eastern Shore has the highest concentration of poultry CAFOs. The Eastern Shore also has the highest numbers of lung cancer, COPD, asthma in children and other respiratory problems, more than anywhere else in MD."* – **Gabby Cammarata, Concerned Citizens Against Industrial CAFOs**

3. *"I've lived in the same house my entire life, in a suburb composed of many types of people. We live less than a mile away from the biggest factory farm in our county. This so-called 'facility' is also located less than two miles away from an elementary school and a retirement area. I think everyone here deserves to know what we're breathing and what has an impact on our health. This area was zoned not just for agriculture. After going in front of our County Council and Zoning Board, we feel like the good old boy network is alive and well. Please help us have some type of protection."* – **Nicole Kopnisky**

MISSOURI:

1. *"A 4K piggery was approved in my neighborhood last summer, with no notice to even the closest neighbors. It also sits nearly directly by the little country church I attend. No one asked us. No one told us. Yet now, we will deal with the health impacts even while in church. And now, 'they' (big agriculture) want to make the rules even more lax? I don't think so!"* – **Tammy Williams**
2. *"My family lives about 10 miles from several large egg laying facilities and other CAFOs have moved in nearby, as well. The stench from the facilities on days when the wind blows from the east is intolerable. Other days that the farmers are spreading manure all over their fields, the stench is just as bad if not worse. It is polluting and killing out our local streams from the runoff off of their fields or overflows from the CAFO's. Please help and allow regulations and provide enforcement of them to prevent harm to MO citizens."* – **Angela Corson**
3. *"There are 5,000 hogs located three miles from my house and they want to expand to 20,000."* – **Ron Ihler**
4. *"There are polluting the air, water, soil and streams in my county, and proposed a 7,500 head farrowing operation coming within 1.5 miles of our home."* – **Bill Embry**

MONTANA:

1. *"Our town is under the threat of an incoming massive slaughterhouse with CAFOs to follow. We know it will utterly destroy our community, a community my family Has lived in for six generations. I don't eat meat from CAFOs and don't want them in my state. Buying local from small businesses should be the goal not HUGE monopolies."* – **Renae Munson**

OHIO:

1. *"Nearly each year, Lake Erie and many of Ohio's other waterways, contend with bright green mats of toxic algae. In 2011, Lake Erie experienced one of the worst toxic algae seasons on record, until 2015 when the green slime was so severe it ranked a 10.5 on a 1 – 10 scale. That same year, toxic algae stretched over 650 miles of the Ohio River.*

But the landmark event that most people remember is the weekend in early August 2014 when nearly half-a-million Toledo residents were told not to drink their tap water. Toxin concentrations from Lake Erie's algae made the city's water too dangerous to use and sent people scrambling to find bottled water, which quickly sold out in the metro-area."
Visit our website for some stories: <https://theoec.org/clean-water/toxic-algae/>. – **Kristy Meyer, Ohio Environmental Council**

OKLAHOMA:

1. *"Poultry CAFOs are all around my area and they smell horribly. People complain of health issues that live close to these units. Once I visited a farmer that lived next to a hog CAFO that polluted his stream and the smell so horrible that when I came to his door he was in his chair with a wet rag on his face because of the bad odor. He was in his 80s. His neighbor, a woman, had asthma and was struggling because of the odor. She was too poor to afford air conditioner. Like him, she kept wet rag over her face, but that did keep her from dying the night before I arrived. I have many more stories like this. People have lost their ability to have family gatherings at their farms and homes because of nearby CAFOs due to the smell. Rural folks can't have grandchildren over to spend the night or weekend any more. Outdoor BBQs are out of the question. These emissions have changed the lives of folks living in communities affected."* – **Earl Hatley, Grand Riverkeeper/LEAD Agency, Inc.**

SOUTH DAKOTA

1. *"There are weak county ordinances with poor setback distances. The underfunded and understaffed State DENR have NO authority to levy fines and enforce regulations."* – **Phillip Tau**
2. *"Yankton County is allowing numerous CAFO permits with families that live with ½ to ¼ miles from these factories."* – **Daniel Grant**
3. *"You know it is unhealthy to drive on highways when all you can smell is manure! From my home in South Dakota to my old home in Iowa is like running a gauntlet of horrific smells. CAFOs are taking the joy out of living!"* – **Dianna Torson**
4. *"We have two CAFOs within five miles of our property with 7,000 hogs. When the wind changes it becomes unbearable to breathe. God only knows what it's doing to our water supply since they knowingly built it on a wetland."* – **Mace Roberts, Little City Farms**
5. *"When will corporate greed stop selling out the right to quality of life for the environment and our citizens?"* – **Jane Grant**
6. *"My quality of air is being affected by these corporations having 1970s style curtain barns being constructed for CAFOs near my house without any type of air pollution control because of the corrupt Yankton County Commissioners."* – **Alexis Grant**

VIRGINIA:

1. *"This is one of the reasons why we don't buy commercial meats. If the air is dangerous to humans, think about the animals. Wake up! This is not good for any of us."* – **Jill Averitt**
2. *"I walk outside of my house now and the stink is horrendous between every flock and also when they burn the carcasses."* – **Robert Cold**

WISCONSIN:

1. *"I live 1 ¼ miles from a CAFO. Multiple times in the summer, I cannot sit outside and enjoy my property because of the odor of manure/ammonia. It is very seldom that I can open my windows. Sometimes even in the winter the odor is very strong. Emissions need to be regulated with statutes, not just self-reporting or monitoring. There are air monitoring devices, and they should be required on all CAFOs. CAFOs should be protecting their own workers as well as my air!" – VA J. Drath, Retired Dairy Farmer and Member of Wisconsin Farmers Union*
2. *"I don't want to be a victim of an out of state CAFO owner destroying our county." – Phil Fransen*
3. *"Every time the farmers start farming in our community, I have severe allergic reactions with my eyes, my skin and my breathing. It's horrible. I have friends that are having the same issues. Please do not allow this bill to pass." – Robin Taylor*
4. *"There is a prominent stench whenever the wind is out of the south. There are also hundreds of manure trucks going by that contribute to poor air quality." – Judy Jolin*
5. *"I nearly died from E. coli poisoning a few years ago. There was no way to know where I had come in contact with it, but it was antibiotic resistant and nothing was working. The doctors finally decided they had to try what they called a "last resort" antibiotic because there was a risk of permanent kidney damage. Thankfully, it worked and I still have to take medications to prevent even the slightest of UTIs that may put me at risk again. After a few months, we learned of a restaurant in our neighborhood that had to replace their well because it was contaminated with E. coli. I told my husband that every time we ate there I felt sick and it was just a few days after eating there for the last time that I ended up in the hospital with E. coli poisoning. There are several wells in our county that have tested positive for nitrates, and even some with E. coli after a major spill that went unreported for several months by a CAFO in the same township as the restaurant I spoke of. I do not believe it is a coincidence." – Carol Johnson*

March 9, 2018

The Honorable John A. Barrasso
Chairman
Environment and Public Works Committee
United States Senate
307 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Thomas R. Carper
Ranking Member
Environment and Public Works Committee
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Mike Rounds
Chairman
Environment and Public Works Committee,
Subcommittee on Superfund, Waste
Management and Regulatory Oversight
United States Senate
410 Dirksen Senate Office Building
Washington, DC 20510-6175

The Honorable Cory Booker
Ranking Member
Environment and Public Works Committee,
Subcommittee on Superfund, Waste
Management and Regulatory Oversight
United States Senate
456 Dirksen Senate Office Building
Washington, DC 20510-6175

Re: Opposition to S. 2421, the “Fair Agricultural Reporting Method Act.”

Dear Chairman Barrasso, Ranking Member Carper, Chairman Rounds, Ranking Member Booker, and members of the Environment and Public Works Committee:

In light of the upcoming hearing in the Senate Environment and Public Works Subcommittee on Superfund, Waste Management, and Regulatory Oversight, the undersigned organizations, rural community members, farmers, and impacted constituents from across the country submit this letter in opposition to S.2421, the so-called, “Fair Agricultural Reporting Method Act.” Instead of protecting rural communities from toxic chemical releases, S.2421 would exempt all concentrated animal feeding operations (“CAFOs”) from reporting their emissions of hazardous substances into the air like ammonia and hydrogen sulfide.

As individuals and organizations representing rural community members, farmers, and other constituents, we strongly believe that **communities have a right to know about toxic air emissions near their homes and workplaces—no matter what the source.** Hydrogen sulfide is hydrogen sulfide whether from an industrial power plant or an industrial concentrated animal feeding operation (“CAFO”). There is no reason that people should be denied information about the poisonous emissions they are exposed to simply because the emissions come from a CAFO, where hundreds or thousands of animals are confined for long periods in facilities where their waste is concentrated and stored in high volumes, rather than being dispersed naturally across pastures.

Animal waste at medium and large CAFOs regularly emit ammonia and hydrogen sulfide at levels above the health-based 100 pounds per day reportable quantity under the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”) and the Emergency

Planning and Community Right-to Know Act (“EPCRA”). Ammonia and hydrogen sulfide emissions from CAFOs can cause serious health impacts such as exacerbation of asthma, scarring of the respiratory tract, and even death. Many of our members live in communities near these animal factories, and we know all too well the real-life meaning of these harms. Large CAFOs have been required to report these hazardous emissions for decades. Repealing this reporting requirement would prevent rural residents, some of whom live on and operate family farms, from knowing about poisons in their air simply because the poisons come from CAFOs.

Because of EPA’s illegal 2008 reporting exemption, CAFOs did not have to report their releases under CERCLA. However, large CAFOs have consistently been required to report their releases to state and local officials under EPCRA. Last April, the D.C. Circuit ruled that the CERCLA exemption is illegal and upheld the requirement that large CAFOs report under EPCRA. The Court’s decision protects rural communities by ensuring they have information to help protect their families from toxic chemical releases. As the D.C. Circuit recognized, the risk of harm from AFOs “isn’t just theoretical; people have become seriously ill and even died as a result” of their emissions. Our members must close doors and windows to keep out the stench from CAFOs. They get headaches and feel nauseous when they go outside. They suffer from burning airways and decreased lung capacity because of the toxic emissions that emanate from CAFOs every day.

Congress long ago made clear that communities deserve to know what toxic chemicals are being released in their midst. They also deserve to know that their local emergency responders have that information and that they can therefore effectively protect their communities. Our organizations, many of which have members from rural communities across this country, **deserve the right to know about polluters in our neighborhoods just like those in urban America who live amidst facilities that have been reporting their emissions under these laws for decades.**

The undersigned therefore strongly urge the Senate to oppose S.2421, and to remain steadfast in requiring CAFOs to disclose their emissions so that we can better protect our health and our communities.

Respectfully,

NATIONAL

Animal Legal Defense Fund
Animal Welfare Institute
Center for Biological Diversity
Center for Food Safety
Clean Water Action
Earthjustice
Environmental Working Group
Environment America
Food & Water Watch
Four Paws International
Friends of the Earth
Greenpeace

Humane Society of the United States
In Defense of Animals
Institute for Agriculture and Trade Policy
League of Conservation Voters
Natural Resources Defense Council
Public Citizen
Public Justice
Sierra Club
The Impact Fund
Union of Concerned Scientists
Waterkeeper Alliance

ALABAMA

Gasp, Inc.
Cahaba River Society
Black Warrior Riverkeeper
John Wathen

ARIZONA

Don't Waste Arizona
SunHarvest Solar
Broken Gait Ranch
Goat Ranch
Propers Sales & Service
Daniel Mack
Rhonda Mack
Lorna Proper
Lloyd Rogers
Elaine Kotzyba-Morgan
Robert Samson
Cynthia Bradley
Gerald Morgan
Kelly Reed

ARKANSAS

White River Waterkeeper
Ozark River Stewards
Buffalo River Watershed Alliance
Taylor Family Farm
My Blue Heaven Cabin Rentals & Rivendell
Gardens
Deborah Bird
Dane Schumacher
Marti and Larry Olesen
Ellen Mitchell
Brian Thompson
Jack Stewart
Carol Bitting

CALIFORNIA

Natural Heritage Institute
Endangered Habitats League
Warehouse Worker Resource Center

COLORADO

Western Colorado Congress
Save EPA
Oceti Sakowin Oyate
Inland Ocean Coalition

DELAWARE

Greer Stangl
Katherine Bohs
Pamela White

FLORIDA

Suncoast Waterkeeper

GEORGIA

Environment Georgia

ILLINOIS

Helping Others Maintain Environmental
Standards (HOMES)
Citizens Against Ruining the Environment
Illinois Council-Trout Unlimited
Sierra Club - Shawnee Group
40 Acre Farm
Thornton Farms
Lisa Powell
Connie King
Blake Wells
Linda Green
Mary Burnitz
Joseph Turrise
Heidi Hamelka
Kelly Robbins
Kris Kringle
Jenifer Garlitz
Patty Weyhrich
Priscilla Reynolds
Barbara McKasson
Patricia Livingston
Vincent Koers
Catie Gregg
Kathleen Crombez
Joyce Harant Harant
Tanisha Jones

Carla Womack
Teresa Cox

INDIANA

Kevin Williams
Hoosier Environmental Council

IOWA

Northeast Iowans for Clean Air and Water
Iowa Citizens for Community Improvement
Hartzell Wood Stock
Blueberry Bottom
Nancy Jones
Stacie Lancaster
Cindy Capellen
Joan Olive
Roberta Carpenter
Vern Tigges
Daryl Kothenbeutel
Maria Houser Konzemius
Mark Edwards
Mardene Lien
Kim Nelson
Margaret McDonnell
Sue Biederman
Tom Willett

KANSAS

Friends of the Kaw
Charlea Davis
Cecilia Pruitt
Connie Mann
Charlene Zink
Linda Vanderweide
Susan Lamberson
Teresa Reichart-Vernon
Dierdra Little
Christine Parker
Janet Hofmeister

MARYLAND

Concerned Citizens Against Industrial
CAFOS
Moms Across America Eastern Shore
Lower Shore Progressive Caucus
Potomac Riverkeeper Network

Upper Potomac Riverkeeper
Waterkeeper Chesapeake
ShoreRivers
Henry S. Cole & Associates
Monica Brooks
Charles Denton
Cheryl Sidwell
Nicole Kopnisky
Jane Robinson
Lane Bennett
Jane Robinson
Shannon Evans

MASSACHUSETTS

350 Mass
Attleboro Land Trust
Baypath Humane Society
Berkshire Environmental Action Team (BEAT)
Berkshire Humane Society
Berkshire Voters for Animals
Better Future Project
Billerica Cat Care Coalition
Clean Water Action Massachusetts
Dakin Humane Society
Just Roots Farm
Massachusetts Sierra Club
Massachusetts Society for the Prevention of
Cruelty to Animals (MA-SPCA)
Nantucket Island Safe Harbor for Animals
(NiSHA)
Poodle Rescue of New England
Red Lentil Restaurant
Sustainable Westford's Healthy Kids Coalition
Toxics Action Network
Western Mass Animal Rights Advocates
(WMARA)

MICHIGAN

Environment Michigan

MINNESOTA

Land Stewardship Project

MISSISSIPPI

Pearl Riverkeeper

MISSOURI

Joan Keck Farm

Shirley Kidwell
Angela Corson
Eric Rahm
Susanna Frazier
Tammy Williams
Susan Williams
Bill Embry
Linda Brooks
Ron Ihler

MONTANA

Robbie Regennitter
Marie May
Stephanie Kern
Renaë Munson

NEBRASKA

Nebraska Chapter Sierra Club
George Cunningham

NEW HAMPSHIRE

Stacia Clinton

NEW JERSEY

Hackensack Riverkeeper

NEW YORK

Big Reuse
Gas Free Seneca
Seneca Lake Guardian, a Waterkeeper
Affiliate
Kate Newburger
Gail Musante
Melissa Bishop
Diane MacInnes

NORTH CAROLINA

NC Environmental Justice Network
MountainTrue
Environment North Carolina
Green Riverkeeper
Cape Fear River Watch
Sound Rivers, Inc.
Broad Rivers Alliance, a Waterkeeper
Affiliate
Ayo Wilson

NORTH DAKOTA

Dakota Resource Council
Janelle Engstrom
Terry Engstrom

OHIO

Ohio Environmental Council

OKLAHOMA

Grand Riverkeeper & LEAD Agency, Inc.

OREGON

Renee Wrede

PENNSYLVANIA

Pennsylvania Council of Churches
Mountain Watershed Association

SOUTH CAROLINA

Edisto Riverkeeper
Winyah Rivers Foundation, Inc.

SOUTH DAKOTA

Dakota Rural Action
Phillip Tau
Helena La Batte
Daniel Grant
Carmen Tieszen
Laural Bidwell
Rebecca Terk
Dianna Torson
Cathy Wellner
Jane Grant
Jonathan Riibe
Alexis Grant
Ariana Terry
Donna Wenzlaff
Catherine Hoss
Bryan Bortnem
Valerie Hevle
Patrick Anderson
Lora Johnson
Mogens Mark
Prairie Coteau Farm

Fruit of the Coop
Little City Farms
Shady Grove Cabin

TENNESSEE

Tennessee Riverkeeper
Harpeth Conservancy

TEXAS

San Antonio Bay Estuarine Waterkeeper

VERMONT

Laurie Ristino

VIRGINIA

Health Care Without Harm
Potomac Riverkeeper
Shenandoah Riverkeeper
Frederick Calhoun
Karen Adams
John Robertson
James McGrath
Jill Averitt
Robert Cold

WASHINGTON

Puget Soundkeeper Alliance

WEST VIRGINIA

Ohio Valley Environmental Coalition

WISCONSIN

Milwaukee Riverkeeper
Sustain Rural Wisconsin Network
Virginia J. Drath
James Brennan
Sarah Caldwell
Wayde Lawler
Phil Fransen
Rhonda Carrell
Robin Taylor
Judy Jolin
Carol Johnson
Victoria Rogers
Randy Skinner
David Higgins

Shandra Dodd
Patrick Stoffel
Mary Christenson
James Gitter
Helen Kees

WYOMING

Upper Green River Network, a Colorado
Riverkeeper Affiliate

